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TP 10096E
MEASUREMENT OF ICE FORCES ON SMALL VESSELS

PHASE III
DETAILED PHYSICAL CALIBRATION

Final Report

July 1990

Submitted to:

Transportation Development Centre
Policy and Coordination Group
Transport Canada

Submitted by:

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The contents of this report reflect the views of Fleet Technology Limited and not necessarily the official view or opinions of the Transportation Development Centre of Transport Canada.

Un sommaire en français de ce rapport est inclus avant la Table des matières.

PROJECT TEAM

The project team included I.F. Glen, President of Fleet Technology Limited and Project Advisor/Auditor; D. Howard, Senior Naval Architect; M. Steele, Research Engineer and D. Bourne, Technician.

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16. Abstract

This is the third phase of a project to measure ice loads on small vessels. This report presents the procedures and results of a detailed calibration of the instrumented ice pressure panel on the fishing trawler MV Cape Brier. The calibration data was used by a separate contractor to develop and verify a Finite Element (FE) model of the ice pressure panel. The FE model results were then used to recalculate ice impact pressures from data collected during phase two. The results of these calculations produced unrealistic ice pressures leading to the conclusion that the refined FE model was not able to produce a satisfactory model for transforming strains to ice pressures.

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16. Résumé

Ce rapport présente la troisième phase d'une étude effectuée pour mesurer la force d'impact des glaces sur des petits navires. Le rapport décrit les méthodes, et les résultats obtenus lors de la calibration d'un panneau où les jauges des mesures de pression étaient placées sur le bateau de pêche MV Cape Brier. Les résultats obtenus lors de la vérification ont été utilisés par un autre constructeur engagé pour développer, et vérifier un modèle numérique d'éléments finis.

Les résultats du modèle numérique ont été utilisés pour recalculer la pression d'impact des glaces à partir des données obtenues lors de la phase II du programme. Les résultats ont fourni des pressions non réalistes ce qui nous a conduit à conclure que le modèle d'éléments finis n'était pas apte à reproduire la pression de la glace, en se basant sur les déformations mesurées.

17. Mots clés
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SUMMARY

This report discusses the third phase in a project to investigate ice loads on small vessels in light ice conditions. In previous phases, the National Sea Products fishing trawler MV Cape Brier was fitted with an array of strain gauges. These gauges were to measure ice loads over a 3.8 m^2 area of the starboard bow. An unmanned data acquisition system was installed and operated during fishing operations, collecting a total of 1200 minutes of ice impact activity. However, a technique to transform the measured strains into ice pressures, successfully developed earlier on the USCGC Polar Sea, did not give acceptable results when performed on the MV Cape Brier.

In the third phase reported herein, this problem was addressed by performing a more thorough and carefully controlled physical calibration and developing an independent, refined Finite Element (FE) model. The development of the FE model was contracted separately to Martec Limited of Halifax, Nova Scotia. The physical calibration, described in this report, was performed by Fleet Technology Limited.

The instrumentation system used for the calibration was a modified version of that used in the earlier phases. Specifically, instead of using combinations of gauges to produce strain differences from which to derive loads, the gauges were read individually, since the purpose was to compare measured strain with calculated strain.

An additional 60 gauges were installed for the calibration in the form of 20 3-gauge rosettes. The positions of the additional gauges were determined by the FE contractor based on execution of the new FE model.

Physical modifications were made to the instrumented ice panel to permit an additional seven calibration locations to be loaded. Together with the six calibration locations from the previous phases, this produced a total of 13 calibration load application points.

A major web frame on the boundary of the panel was not included in the FE model; it was felt necessary to examine the effect of the omission of the web frame in the calculation of ice pressures. An FE model developed in phase II was executed to determine the expected error in calculated pressures due to the omission of the web frame. It was found that in the worst case, the error in the calculated pressures would be between +23% and -53%.

Utilizing the results of the FE model developed by the FE contractor and verified by him using the calibration data, the ice strain data collected during the earlier phases was reprocessed into ice pressures. The calculated ice pressures were very large and larger than had been achieved previously. The maximum ice pressure obtained was 148 MPa, well in excess of the failure strength of the ice. As a comparison, the USCGC Polar Sea, which is classified as an Arctic Class 6 icebreaker, recorded maximum ice pressures at 8 MPa during trials in heavy multi-year ice.

An approximate hand calculation ignoring the cross panel influence, produced a calculated pressure of 0.8 MPa. When compared with the value of 148 MPa produced by the FE model, it was concluded that the off diagonal terms of the stiffness matrix (or cross panel influence) were of great significance.

No further re-processing of the previous measured data was made as a result of the finding, and it is concluded that a deeper investigation of the structural modelling requirements must be made.

SOMMAIRE

Ce rapport présente les résultats de la troisième phase d'une étude des forces des glaces sur des petits navires naviguant dans les eaux légèrement couvertes de glaces. Durant les phases précédentes, le bateau de pêche, Cape Brier, qui appartient à la compagnie National Sea Products a été ajusté par des jauges de mesures de la déformation. Ces jauges étaient placées pour mesurer les forces sur une surface de 3,8 m^2 d'un des côtés de la proue. Un système d'acquisition des données a été installé et mis en marche sans supervision lors des opérations du bateau de pêche. Des données d'impact de glaces de vingt heures ont été obtenues. Par ailleurs, l'application de la méthode développée auparavant sur le brise-glace, Polar Sea, n'a pas donné des résultats satisfaisants lorsque appliquée au Cape Brier.

Durant la phase III de l'étude, ce problème a été abordé en effectuant une étude détaillée, une vérification soigneusement contrôlée et le développement d'un modèle numérique d'éléments finis raffiné. Le perfectionnement du modèle numérique a été octroyé séparément à Martec Limitée, Halifax, (Nouvelle-Ecosse). La vérification a été effectuée par Fleet Technologie Limitée.

Le système d'instrumentation utilisé pour la vérification est une version modifiée par rapport a celui utilisé durant les phases précédentes. Etant donné que le but était de comparer la déformation mesurée et calculée; au lieu d'utiliser un ensemble de jauges pour déterminer la force de déformation, une lecture de la déformation des jauges a été faite individuellement.

Soixante jauges additionnelles ont été installées sous forme de vingt groupes de rosettes, de trois jauges chacune, pour fin de vérification. La position des jauges additionnelles a été déterminée par un nouveau modèle numérique d'éléments finis.

Des modifications physiques ont été effectuées au panneau instrumenté afin de permettre sept points de vérification additionnels. Ensemble avec les six autres points de vérification complétés durant les phases précédentes pour un total de treize points de vérification accomplis.

Un cadre d'âme majeur situé sur les limites du panneau n'a pas été considéré par le modèle numérique d'éléments finis. L'effet de cette omission sur le calcul de la pression des glaces a été évalué. Un modèle numérique d'éléments finis, obtenu durant la phase II, a été effectué afin de déterminer l'erreur attendue lors du calcul des pressions, causée par l'omission du cadre d'âme. Les résultats ont montré que cette erreur pour un cas extrême serait entre 23%-53%.

En utilisant les résultats de l'élément fini développé et vérifié par le constructeur qui s'est basé sur des données de calibration des phases précédentes, les données de déformation causées par la glace et recueillies durant les phases précédentes ont été utilisées pour calculer la pression des glaces. La pression de la glace calculée était très grande, encore plus grande que celle obtenue antérieurement. La pression maximale obtenue était 37,1 MPa, beaucoup plus grande que la contrainte de la glace. Pour faire une comparaison, la pression mesurée sur le Polar Sea, un navire brise-glace de classe arctique (6), a été de 8 MPa durant des essais effectués sur des crêtes de glace de plusieurs années.

Une méthode approximative de calcul manuel, sans tenir compte de l'influence de l'indifférence des panneaux, a produit une pression de 0,8 MPa au lieu de 37,1 MPa obtenue par le modèle numérique. Il a été conclu que les valeurs de part et d'autre de la diagonale de la matrice de rigidité était d'une importance significative.

Aucun traitement supplémentaire des données mesurées auparavant n'a été fait suite à cette découverte; on conclut qu'une étude plus approfondie pour déterminer les besoins pour la modélisation de la structure devra être faite.

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1. INTRODUCTION

Around the coastal waterways of Canada, small ships such as fishing trawlers, ferries, and scientific ships regularly operate in ice covered waters. Compared with icebreakers, these ships have relatively light scantlings. The ice strengthening of such vessels is based on the Baltic (or similar classification societies) Ice Rules. Despite the large number of vessels operating in Canadian waters, (and the frequency of hull damage and subsequent repair costs), no ice load data has been obtained on the true loads experienced by the hull from ice impact.

This report describes the third phase of a project initiated in 1984 to measure ice loads on small vessels. This report should be read in conjunction with the reports for Phases 1 and 2 [1,2]. The vessel chosen was an ice-strengthened fishing trawler, MV Cape Brier, belonging to National Sea Products. During the earlier phases, the Cape Brier was fitted with an array of strain gauges. These strain gauges were to measure ice loads over 3.8 m^2 of the starboard bow. An unmanned data acquisition system was installed and operated. In total, 1200 minutes of ice activity were recorded during the operations of the vessel.

One significant problem emerged during the data collection phases. The technique used to transform the measured strains into pressures, which was based on the earlier successful work by the contractor on the USCGC Polar Sea [3], failed to give acceptable agreement between the physical calibration and a finite element model (FEM) of the structure.

In the third phase reported herein, this problem was addressed by performing a more thorough and carefully controlled physical calibration and developing an independent, refined FE model. The FE model was contracted separately to Martec Limited of Halifax, Nova Scotia (referred to as the FE contractor) and is reported in [4]. Fleet Technology Limited performed the physical calibration.

Following the development of the 'new' FEM by the FE contractor, and confirmation of the load/strain conversion model, the results from the measured strains were reprocessed to re-assess the ice loads.

This report begins by describing the instrumentation system used during the calibration and the modifications required to the system for this project. The calibration loading points and the calibration procedures are then described. Using the results supplied by the FE contractor, ice pressures from previous field measurements and the technique used to calculate these pressures are discussed.

2. INSTRUMENTATION SYSTEM DESCRIPTION

2.1 Overview

The instrumentation system used for the calibrations was a modified version of that used in Phases I and II as reported in [1] and [2]. Figure 2.1 shows the instrumentation hardware. The system consisted of four primary components:

- 224 individual strain gauges (82x2 and 20x3 gauges) in 102 different gauge locations on the stringer and frames in the dry tank.
- A bridge completion junction box located in the dry tank.
- 64 channels of strain gauge signal conditioning, two 32 channel analog/digital converters, and a single board Z80 microprocessor for data sampling.
- A HP85 computer for acquisition system control and data storage.

2.2 Strain Gauges

In prior phases of this work, the vessel had been fitted with 164 strain gauges, arranged in pairs at 90° to each other, resulting in 82 locations. On unsymmetrical sections, such as angle bars, gauges were arranged with gauge pairs on opposite sides of the web to compensate for possible asymmetry. On symmetrical sections, only one gauge pair was fitted. This resulted in a total of 47 load measuring locations.

These gauges had been wired in pairs previously (see figure 2.2) and were not suitable in the configuration for individual strain measurement as required in this contract.

An additional 60 gauges were installed for the calibrations in the form of 20 3-gauge rosettes. These are often used in stress analysis where the direction of principle strain needs to be determined (Figure 2.3). To facilitate installation, the rosettes were bonded to shim-stock in the laboratory and spot-welded in place on the vessel.

The target locations for the new gauges were determined by the FE contractor. The final locations were as close to the targets locations as physically possible. Figure 2.4 shows the general locations of all the gauges. Specific gauge location information and gauge designation conventions can be found in Appendix A.

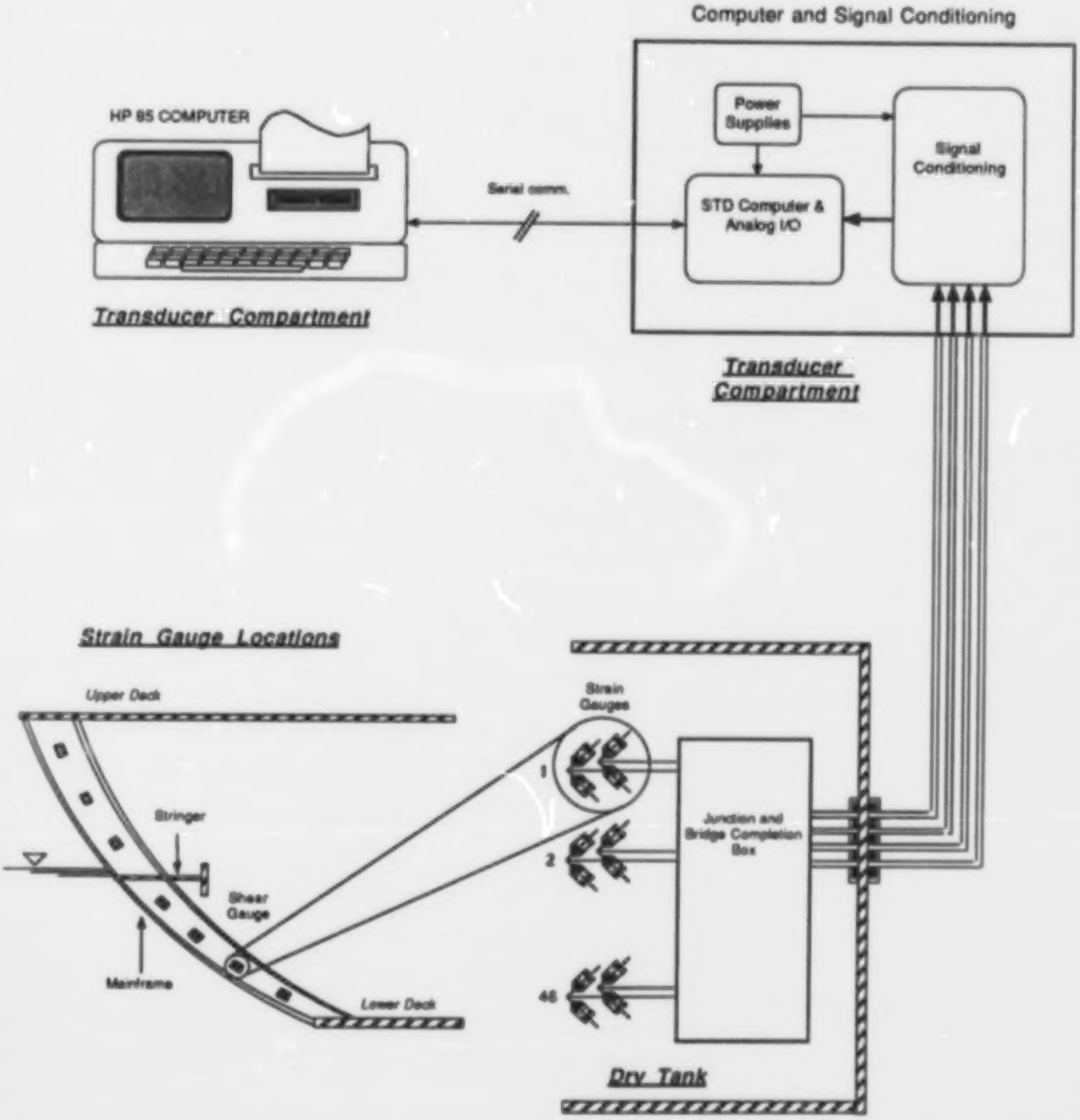

Computer and Signal Conditioning
HP 85 COMPUTER
Serial comm.
Power Supplies
Signal Conditioning
STD Computer & Analog I/O
Transducer Compartment
Transducer Compartment
Strain Gauge Locations
Upper Deck
Stringer
Shear Gauge
Mainframe
Lower Deck
Strain Gauges
1
2
46
Junction and Bridge Completion Box
Dry Tank

Figure 2.1 MV Cape Brier Ice Load Instrumentation

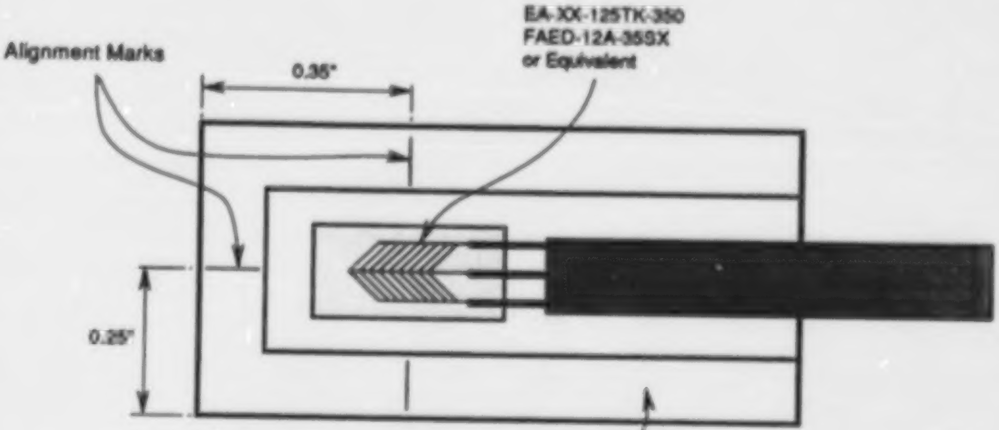
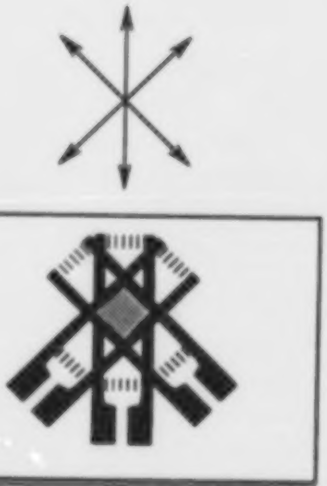

EA-XX-125TK-350
FAED-12A-35SX
or Equivalent
Alignment Marks
0.35"
0.25"
Carrier: 1.0"L x 0.5"W x 0.006"
17 SS - 6 PPM
300 SS - (PPM

Figure 2.2 Pre-existing Gauges



Gauge Length	Overall Length	Grid Width	Overall Width
0.250 ES *6.35 ES*	0.510 ES *12.95 ES*	0.125 ES *3.18 ES*	0.600 M *15.24 M*
Matrix Size 0.51L x 0.60W *13.0L x 15.2W*			

Figure 2.3 Installed Rosette Gauges

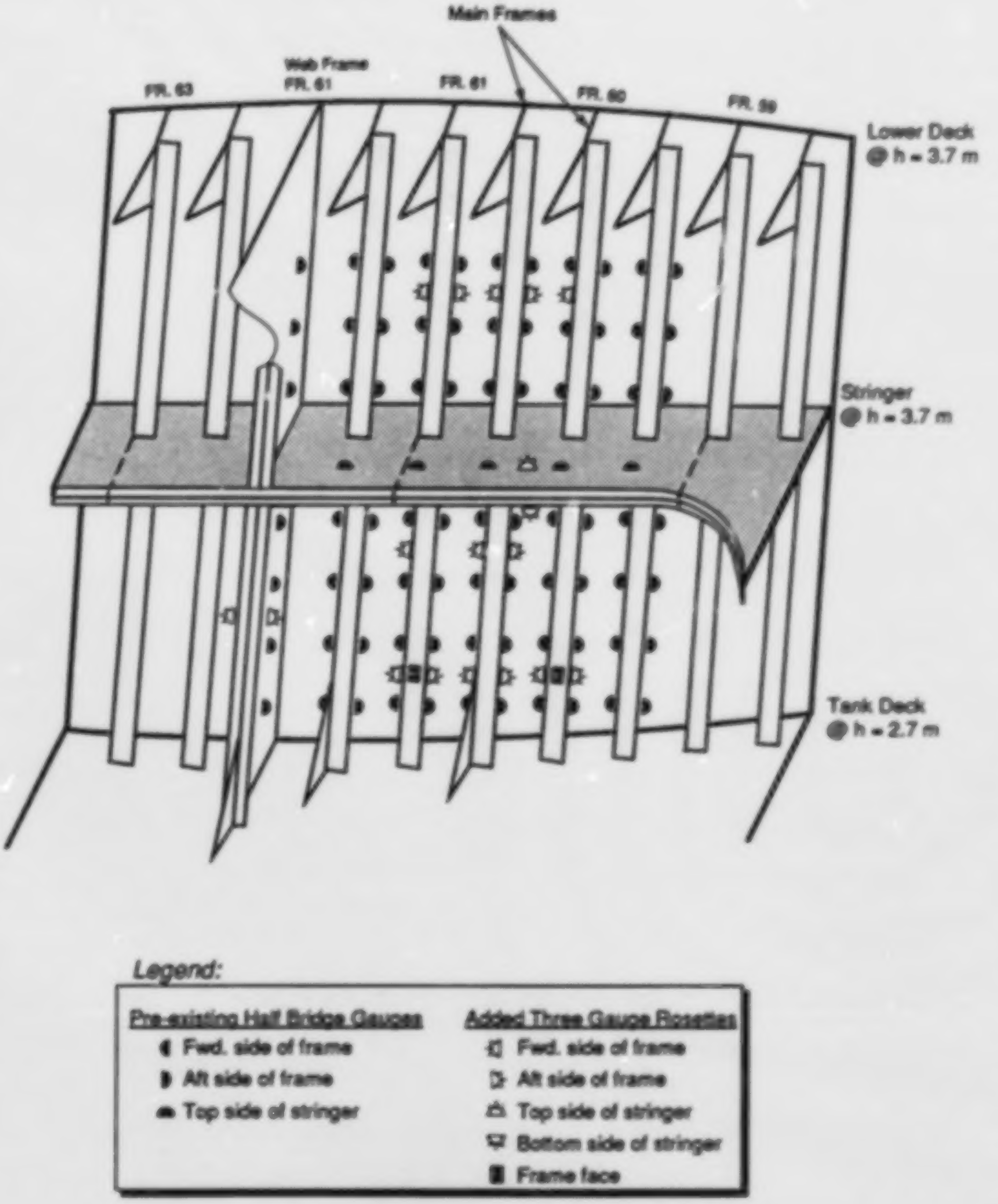

Main Frames
Web Frame
FR. 61
FR. 63
FR. 61
FR. 60
FR. 59
Lower Deck
@ h = 3.7 m
Stringer
@ h = 3.7 m
Tank Deck
@ h = 2.7 m
Legend:
Pre-existing Half Bridge Gauges
◖ Fwd. side of frame
◗ Aft side of frame
◓ Top side of stringer
Added Three Gauge Rosettes
Fwd. side of frame
Aft side of frame
Top side of stringer
Bottom side of stringer
Frame face

Figure 2.4 Strain Gauge Locations from Inside Dry Tank

2.3 Bridge Completion Junction Box

When used to measure *load*, the strain gauges were connected together electically in pairs or in quadruplicate to produce an output proportional to the applied load. For the calibration, it was desired to measure the *strain* at a specific location. To measure the individual strains recorded by each gauge a switching arrangement was devised whereby individual or combined gauge outputs could be connected to the signal conditioning instrumentation. Printed circuit boards were then produced with the appropriate switching components for all 64 data channels. The PC boards were installed and wired into the bridge completion junction box located in the dry tank. Figure 2.5 shows the switching circuitry for a single data channel and the bridge configurations attainable.

2.4 Signal Conditioning and Digitizing Equipment

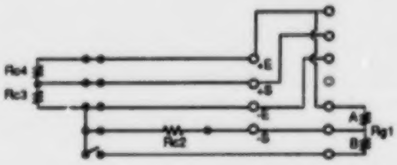
The signal conditioning and digitizing hardware used for the calibrations was that which was installed for Phase II. The equipment was removed from the vessel and sent to the FTL facilities for a complete system check. Each instrumentation channel was tested and when necessary, repairs were made.

The gain for each channel was set to provide a total range of ±120 microstrain. The analog/digital converters had a resolution of 1:4096, giving an overall resolution of 0.06 microstrain at the calibration gain. The transducer used to measure the applied loads was calibrated through a dedicated instrumentation channel while the equipment was available in the FTL laboratory. No changes were necessary to the Z80 digitizing computer. The calibration software (on ROM) used for Phase I and II calibrations was left unchanged.

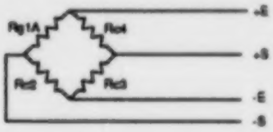
2.5 Data Storage and Acquisition Control Computer

No hardware changes were necessary to the HP85 computer used for data acquisition control and data storage. Changes to the calibration software were made to facilitate accessing a larger number of data channels and to handle the storage requirements of the increased number of measurements.

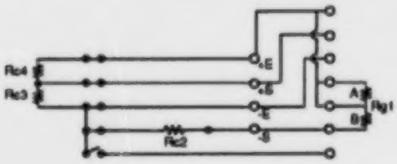
Configuration Quarter Bridge - A


Rc4
Rc3
+E
+S
-E
-S
Rc2
A
B
Rg1

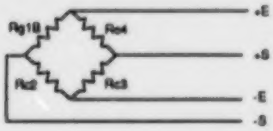
Equivalent Circuit


Rg1A
Rc4
Rc2
Rc3
+E
+S
-E
-S

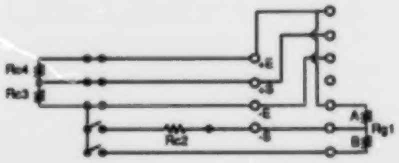
Configuration Quarter Bridge - B


Rc4
Rc3
+E
+S
-E
-S
Rc2
A
B
Rg1

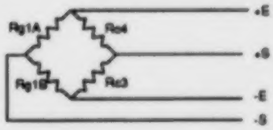
Equivalent Circuit


Rg1B
Rc4
Rc2
Rc3
+E
+S
-E
-S

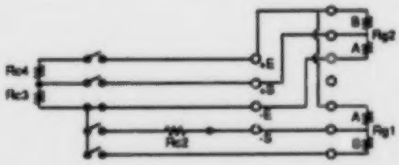
Configuration Half Bridge


Rc4
Rc3
+E
+S
-E
-S
Rc2
A
B
Rg1

Equivalent Circuit


Rg1A
Rc4
Rg1B
Rc3
+E
+S
-E
-S

Configuration Full Bridge


B
Rg2
A
Rc4
Rc3
+E
+S
-E
-S
Rc2
A
B
Rg1

Equivalent Circuit

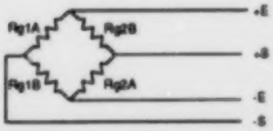

Rg1A
Rg2B
Rg1B
Rg2A
+E
+S
-E
-S

Figure 2.5 Strain Gauge Bridge Completion Switching Circuitry

3.0 LOAD POINTS AND CALIBRATION PROCEDURES

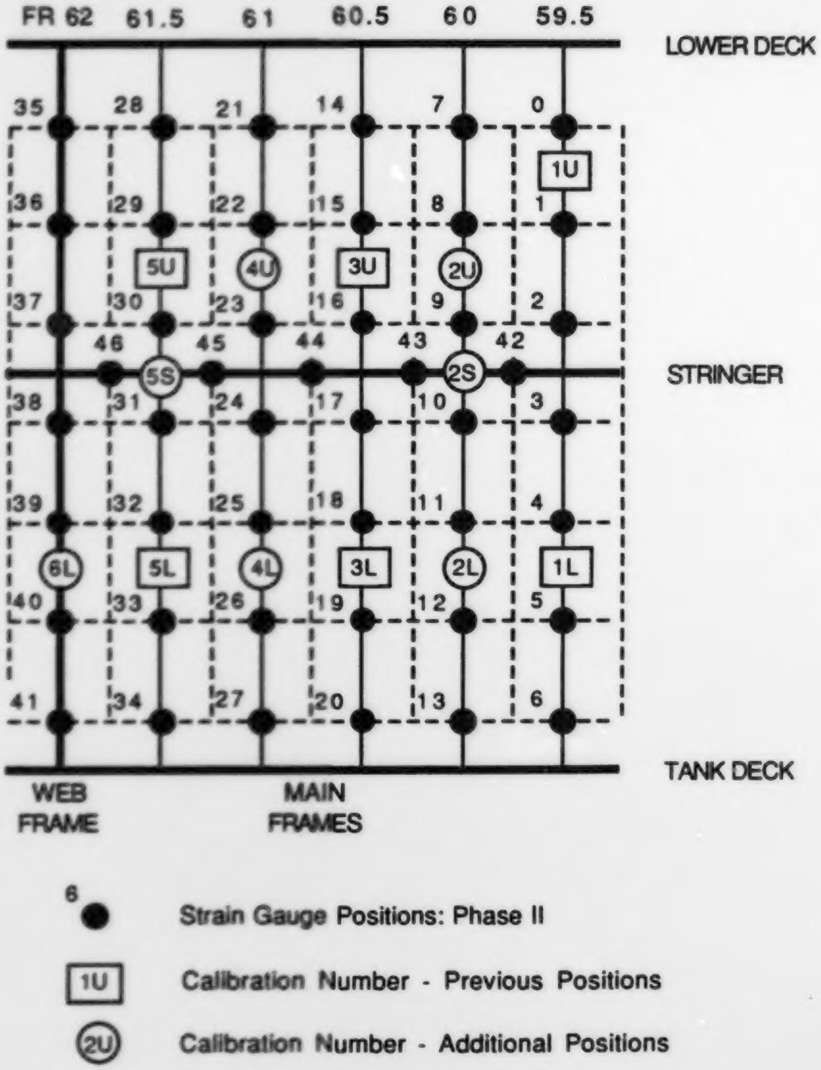
3.1 Load Point Additions

Physical modifications within the dry tank were undertaken to increase the number of load application points. Figure 3.1 shows the load application points. Locations 1U, 3U, 5U, 1L, 3L and 5L are those used for Phases I and II. Added load locations are 2U, 2L, 2S, 4U, 4L, 5S and 6L, giving a total of 13 locations.

Padeyes were welded to and in line with the web face of the main frames, and to the flange face of the stringer and web frame. The padeyes were in line with anchor points on the header beam at the centreline bulkhead (Figure 3.2). Anchor points existed from Phase I and II calibrations in line with frames 59.5, 60.5 and 61.5 (locations 1, 3 and 5). The gusset in line with frame 61 was drilled to serve as an anchor point for location 4. A padeye was welded as close to the centreline bulkhead as possible at web frame 62 to serve as an anchor point for location 6. Figure 3.3 shows the measured positions of the load application points.

3.2 Loading Considerations

A hydraulic ram was used to pull inward between the calibration points and the anchor points on the header beam. In the majority of cases load was applied in a plane perpendicular to the centreline bulkhead. However, due to the eccentricity of the padeye and the non-symmetry of the main frames, this loading configuration produced a moment (which was modelled by the FE contractor). It was not possible to load location 2 perpendicular to the centreline bulkhead due to an obstruction between the load points and the header bar. In all location 2 load cases, the anchor point used was that in line with locations 1 or 3 (frames 59.5 or 60.5).


FR 62
61.5
61
60.5
60
59.5
LOWER DECK
STRINGER
TANK DECK
WEB FRAME
MAIN FRAMES
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
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27
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34
35
36
37
38
39
40
41
42
43
44
45
46
1U
2U
3U
4U
5U
2S
5S
1L
2L
3L
4L
5L
6L
6
Strain Gauge Positions: Phase II
1U
Calibration Number - Previous Positions
2U
Calibration Number - Additional Positions

Figure 3.1 Location of Calibration Loads

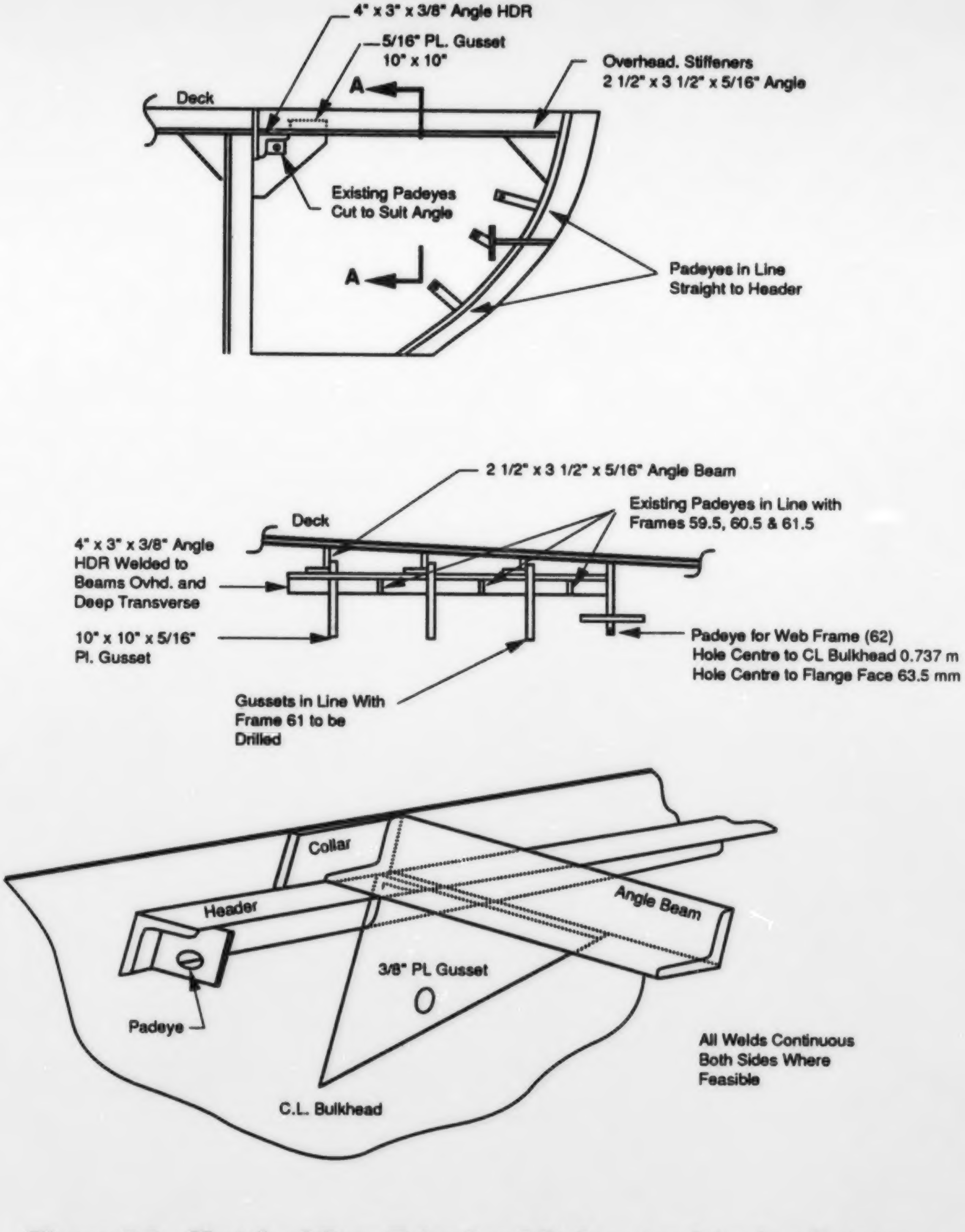
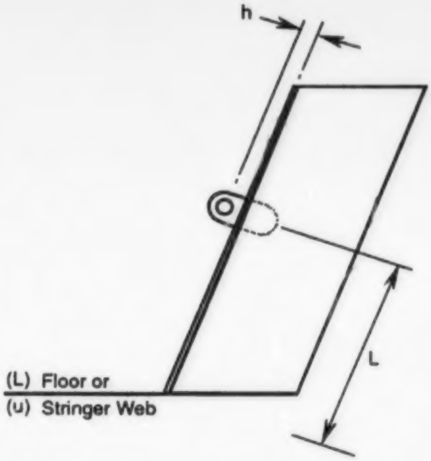
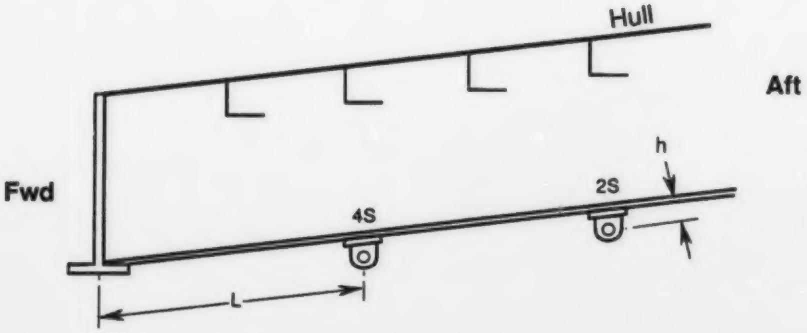

4" x 3" x 3/8" Angle HDR
5/16" PL. Gusset 10" x 10"
Overhead. Stiffeners 2 1/2" x 3 1/2" x 5/16" Angle
Deck
A
Existing Padeyes Cut to Suit Angle
Padeyes in Line Straight to Header
A
2 1/2" x 3 1/2" x 5/16" Angle Beam
Existing Padeyes in Line with Frames 59.5, 60.5 & 61.5
Deck
4" x 3" x 3/8" Angle HDR Welded to Beams Ovhd. and Deep Transverse
10" x 10" x 5/16" Pl. Gusset
Padeye for Web Frame (62) Hole Centre to CL Bulkhead 0.737 m Hole Centre to Flange Face 63.5 mm
Gussets in Line With Frame 61 to be Drilled
Collar
Header
Angle Beam
3/8" PL Gusset
Padeye
C.L. Bulkhead
All Welds Continuous Both Sides Where Feasible

Figure 3.2 Sketch of Cape Brier Load Padeyes and Anchor Points


h
L
(L) Floor or
(u) Stringer Web

Location	h mm	L mm
1U	63.5*	692.2*
2U	34.9	393.7
3U	38.1	349.3
4U	38.1	393.7
5U	31.75	368.3
1L	38.1	863.6
2L	41.3	854.1
3L	38.1	863.6
4L	34.9	850.9
5L	38.1	908.1
6L	63.5	984.3

** Estimate*


Hull
Aft
Fwd
h
2S
4S
L

2S	L = 1.391 m	h = 63.5 mm
4S	L = 0.730 m	h = 63.5 mm.

L from web frame *CL* to hole centre
h from stringer flange to hole centre

Figure 3.3 Load Point Measured Positions

3.3 Calibration Procedures

A total of 224 individual gauges were measured for the calibrations. Six sets of calibrations were necessary to measure all the gauges because of the number of available data channels and the constraints upon simultaneous recording of gauges as discussed in section 2.2. For this purpose, the gauges were classified in six groups, "A to F".

A group of gauges was prepared, and each load position was calibrated before proceeding to the next group. An electrical shunt calibration was performed for each gauge group, before the physical calibration. The shunt calibrations simulated an applied strain of approximately 100 microstrain on each gauge, allowing the relationship between output voltage and measured strain to be determined. Therefore, differences between signal conditioning were accounted for. A typical example of the output from a shunt calibration is shown in Table 3.1 for one group of gauges.

The sequence of events for the calibrations was as follows:

1. Connect each gauge from a group to a data channel, check and adjust excitation voltage and bridge balance, and document gauge/data channel allocation.

2. Perform an electrical shunt calibration on each channel and calculate microstrain per volt.

3. Take preliminary zero load reading.

4. Apply loads of approximately 2, 3.5, 5, 3.5 and 2 tons in sequence. Hold each load for about 15 seconds and then record the gauge measurements.

5. Take final zero load readings.

6. Move to a new load location and repeat steps 3 to 5.

7. After all 13 load locations have been calibrated, repeat steps 1 to 6 for a new group of gauges.

Table 3.2 illustrates the output obtained from the calibration at a single load location. The file name convention is:

first character	- gauge group (A-F), hyphen,
next 2 characters	- load location (1U, 3L etc), hyphen,
last character	- calibration number (usually=1)

Data presented in Table 3.2 is corrected using the beginning zero load reading. The complete set of calibration data can be found in Appendix B.

Figure 3.4 shows the linearity and consistency of typical calibration data.

Table 3.1

Example of Electrical Shunt Calibration Results

(Gauge Group "B")

```
SHUNT CALIBRATION  ESHNT1                  SHUNT CALIBRATION  ESHNT1

CH   GAUGE     GF     ZERO1      + CAL      - CAL     ZERO2      uS/ADU   GAUGE
 0   1A-AY   2.05      64.6     1787.4   -1651.2      65.3       .0601   1A-AY
 1   1B-AY   2.05     124.9     1847.6   -1593.7     124.3       .0601   1B-AY
 2   1C-AY   2.05      81.7     1807.9   -1632.0      81.2       .0602   1C-AY
 3   1D-AY   2.05     -76.0    -1806.4    1643.5     -79.3      -.0598   1D-AY
 5   1F-AY   2.01      59.0     1793.7   -1677.6      53.9       .0608   1F-AY

 7   1G-AY   2.05      71.6     1810.1   -1663.3      70.0       .0595   1G-AY
10   2B-AY   2.05     204.7     1943.2   -1533.0     205.4       .0594   2B-AY
11   2C-AY   2.01      11.5     1741.9   -1716.9      10.8       .0609   2C-AY
12   2D-AY   2.05    -138.6     1598.7   -1860.6    -144.5       .0595   2D-AY
14   2E-AY   2.05     -20.4     1718.4   -1759.9     -20.9       .0594   2E-AY

15   2F-AY   2.01     156.0     1891.6   -1574.8     154.9       .0608   2F-AY
16   2G-AY   2.01     -96.6     1618.6   -1844.4    -160.8       .0620   2G-AY
17   3A-AY   2.01     -25.8     1694.0   -1714.9      13.3       .0611   3A-AY
19   3C-AY   2.05     163.8     1896.1   -1568.7     163.3       .0597   3C-AY
21   3E-AY   2.05     197.5     1930.5   -1509.0     192.5       .0602   3E-AY

22   3F-AY   2.05     -90.7     1641.4   -1813.0     -91.0       .0598   3F-AY
24   4A-AY   2.01      91.8     1829.1   -1637.4      93.0       .0608   4A-AY
25   4B-AY   2.01      65.8     1793.9   -1659.4      64.9       .0610   4B-AY
28   4D-AY   2.05     103.3     1833.5   -1616.8     103.4       .0599   4D-AY
29   4E-AY   2.05     223.4     1957.4   -1502.4     223.3       .0597   4E-AY

30   4F-AY   2.05       8.7     1749.9   -1717.5       8.9       .0596   4F-AY
32   4G-AY   2.05     179.3     1888.6   -1520.6     176.9       .0607   4G-AY
33   5A-AY   2.05     -40.4     1672.1   -1762.7     -41.4       .0602   5A-AY
34   5B-AY   2.05    -134.4     1616.3   -1835.4    -135.8       .0599   5B-AY
36   5D-AY   2.05     152.2     1877.8   -1547.6     152.9       .0603   5D-AY

37   5E-AY   2.05     174.1     1865.9   -1520.5     177.5       .0606   5E-AY
39   5F-AY   2.05     -35.7     1747.9   -1681.3      47.5       .0588   5F-AY
42   5G-AY   2.05      24.8     1750.6   -1699.6      23.0       .0599   5G-AY
43   R01-B   2.09       3.6     1733.2   -1708.1      -5.9       .0591   R01-B
46   R03-B   2.09    -138.9     1586.0   -1841.0    -140.2       .0592   R03-B

47   R04-B   2.09     -23.0     1669.0   -1713.6     -21.2       .0595   R04-B
51   R07-B   2.09    -102.9     1622.7   -1830.7    -103.2       .0587   R07-B
52   R08-B   2.09     152.7     1871.3   -1570.9     150.4       .0589   R08-B
58   R11-B   2.09     112.9     1823.1   -1586.9     112.8       .0594   R11-B
60   R13-B   2.09      28.4     1752.3   -1695.6      27.0       .0588   R13-B

61   R14-B   2.09     -96.5     1627.7   -1816.5     -97.3       .0589   R14-B
63   LOAD    2.01      17.0      101.0     -93.1      20.3      1.0416   LOAD
```

Table 3.2

Physical Calibration Results at Load Location '4U'

```
FILE: B-4U-1

READING    TONS       LBS       KG
   #1      2.01      4029     1828
   #2      3.38      6759     3066
   #3      4.87      9749     4422

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1A-AY        .2       .2   [illegible]
 1   1B-AY        .9      1.7      2.[illegible]
 2   1C-AY       1.2      1.9      2.[illegible]
 3   1D-AY       -.3      -.6      -.9
 5   1F-AY       -.2      -.4      -.[illegible]

 7   1G-AY       -.4      -.8     -1.[illegible]
10   2B-AY       1.7      3.1      4.[illegible]
11   2C-AY       2.4      4.0      5.[illegible]
12   2D-AY        .3       .1      -.1
14   2E-AY       -.7     -1.1     -1.[illegible]

15   2F-AY       -.9     -1.5     -2.0
16   2G-AY       -.9     -1.6     -2.2
17   3A-AY       3.0      5.2      7.[illegible]
19   3C-AY       3.0      5.1      7.[illegible]
21   3E-AY      -1.3     -2.2     -2.[illegible]

22   3F-AY      -1.0     -1.9     -2.7
24   4A-AY      13.3     22.2     31.[illegible]
25   4B-AY      27.3     45.8     65.[illegible]
28   4D-AY       -.5      -.8     -1.0
29   4E-AY       0.0       .2       .4

30   4F-AY       -.1      -.2      -.1
32   4G-AY       -.1      -.1      -.1
33   5A-AY        .5      2.3      2.[illegible]
34   5B-AY        .3       .3       .4
36   5D-AY      -1.6     -1.8     -2.4

37   5E-AY      -1.2     -1.6     -2.7
39   5F-AY      -1.7     -3.2     -3.6
42   5G-AY       -.2      -.2      -.6
43   R01-B       1.8      2.2      2.8
46   R03-B        .2       .5       .7

47   R04-B       -.4      -.6     -1.0
51   R07-B       -.1      -.2      -.4
52   R08-B       -.7      -.7      -.7
58   R11-B       5.2      5.3      6.1
60   R13-B      -2.1     -3.4     -5.0

61   R14-B       -.1      -.4      -.8

SEP-05-89    16:26
```

```
FILE: B-4U-1

READING    TONS       LBS       KG
   #4      3.38      6765     3068
   #5      1.94      3871     1756
   #6      -.04       -79      -36

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1A-AY        .5       .4       .7
 1   1B-AY       1.6      1.0       .1
 2   1C-AY       1.9      1.0       .1
 3   1D-AY       -.4      -.2       .2
 5   1F-AY       -.4      0.0       .5

 7   1G-AY       -.7      -.4       .2
10   2B-AY       3.2      1.9       .3
11   2C-AY       4.1      2.4       .1
12   2D-AY        .3       .5       .0
14   2E-AY      -1.0      -.5       .3

15   2F-AY      -1.4      -.8       .1
16   2G-AY      -1.6      -.9       .1
17   3A-AY       5.3      3.2       .4
19   3C-AY       5.2      3.3       .7
21   3E-AY      -1.7      -.5      1.1

22   3F-AY      -2.0     -1.1       .1
24   4A-AY      22.1     13.0      -.1
25   4B-AY      45.6     26.4      -.4
28   4D-AY       -.7      -.4       .2
29   4E-AY        .4       .4       .5

30   4F-AY       -.1       .1       .2
32   4G-AY       -.1      -.1      -.1
33   5A-AY       2.3       .6       .3
34   5B-AY        .3       .3       .2
36   5D-AY      -1.7     -1.0      1.3

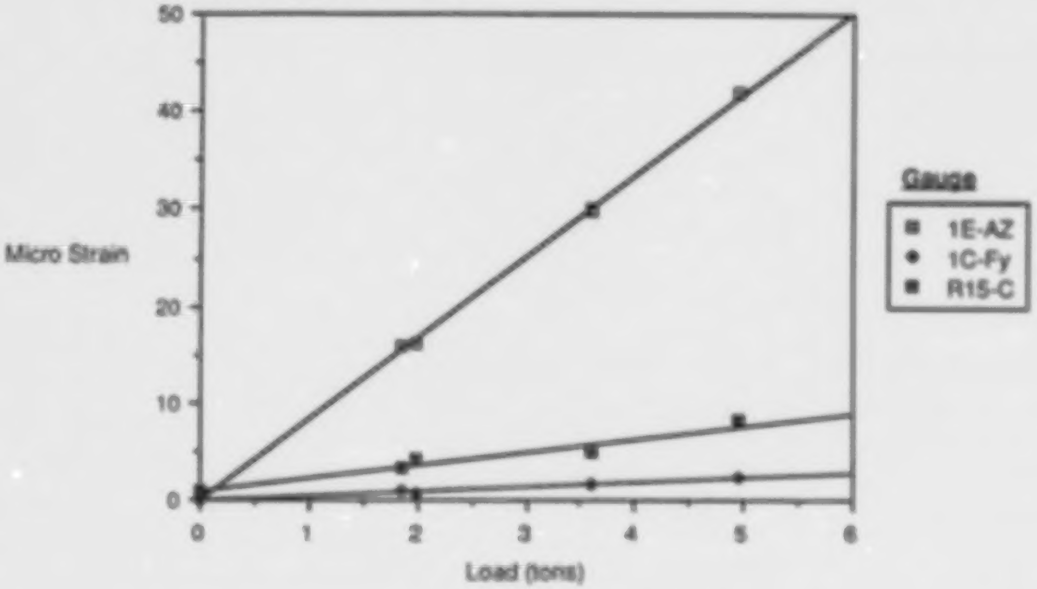
37   5E-AY      -1.9     -1.7       .4
39   5F-AY      -3.2     -2.1      0.0
42   5G-AY       -.2      -.1       .4
43   R01-B       2.1      1.0      -.1
46   R03-B        .6       .1     -1.7

47   R04-B       -.6      -.4       .7
51   R07-B       -.4      -.1      0.0
52   R08-B       -.7      -.6      -.5
58   R11-B       2.2       .8     -1.5
60   R13-B      -3.4     -2.1       .1

61   R14-B       -.4      -.2      0.0

SEP-05-89    16:26
```

a) For Test D-1L-1



b) For Test E-1L-1

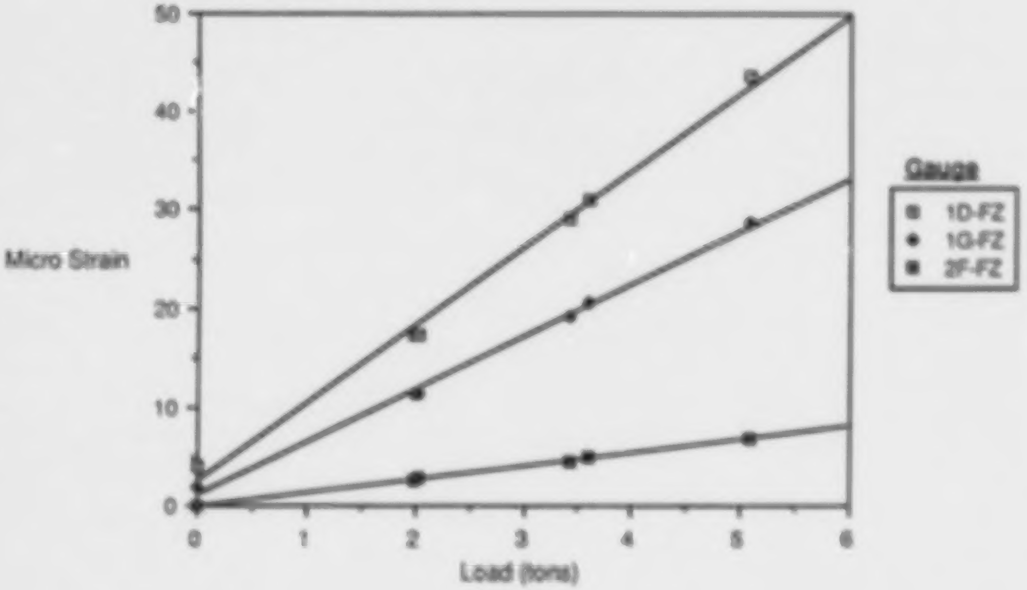


Figure 3.4 Typical Calibration Curves

4.0 CALCULATION OF ICE PRESSURES FROM MEASURED STRAIN DATA

4.1 Calibration Matrix

A new calibration matrix was developed for re-analysing the ice load data measured in the previous phases of the project. The FE contractor supplied the calculated strains for a unit pressure load applied to each of the panels and the calculated strains for an unknown test case. In this latter case, the FE contractor supplied strain results only and it was our intent to determine what load had been applied. The calibration matrix is determined by using these results as described in [2] where the matrix is known as [K]. Because strains from the web frame are not available, the off-diagonal elements in the matrix for the web frame panels are set to zero.

The validity of the calibration matrix is demonstrated by determining the applied load (pressure), using the matrix, for the 30 fictitious pressure load cases used by the FE contractor and the one test case. This data is presented in Appendix C and demonstrates the validity of the approach.

4.2 Effect of Web Frame Omission

Since the web frame strains were not available from the FEM, it was necessary to examine the effect of not including the web frame in the calculation of ice pressures. The original FESDEC FEM developed in [2] was re-run to check the magnitude of the error caused by omitting the coefficients for the web frame. The load applied to the FESDEC FEM was typical of an ice load acting on panels both on and off the web frame. The output from these runs are found in Appendix D.

For the case where all gauges are utilized, the pressure algorithm exactly reproduces the applied load. For the case where the web frame results are not used in the calibration matrix, the pressure algorithm only reproduces the applied load when the web frame is not loaded. According to the FESDEC model, when a load is applied along the entire length of the web frame, the error in the calculated pressures on the non-web frame panels ranges between 117% and -207% of the maximum applied load. For a load applied to one of the web frame panels, the error in the calculated pressures on the non-web frame panels ranges between 23% and -53%.

Since most ice impacts occur over small contact areas, the error in the calculated pressures from field data will be similar to the one panel case. However, these errors are dependant upon the cross influence of adjoining panels. The cross influence predicted by the FESDEC model was larger than measured. Thus the expected errors caused by not modelling the web frame should be smaller than indicated above.

4.3 Reprocessing Field Measurements

The field data collected during [2] was reprocessed using the calibration matrix derived from the FE contractor's strain output. The calculated ice pressures were better than had been obtained with the previous FE model, but were still large. The maximum ice pressure calculated on the non-web frame panels was 37.1 MPa. Since the MV Cape Brier is ice strengthened to a Lloyds Register Class 1A Super (which uses a nominal design ice pressure of 4.70 MPa for hull strength calculations), and the crushing strength of first year ice is around 8-10 MPa, the results are clearly in error. For comparison, the USCGC Polar Sea, which is classified as an Arctic Class 6 icebreaker, recorded ice pressures as high as 8 MPa during 1983 trials in heavy multiyear ice [3].

To investigate the cause of these high pressures, one particular ice impact is analyzed in detail. This one impact occurred on March 5, 1987 at 10:51:05.99 and is shown in Table 4.1. Except for strains recorded below the stringer on the frame 61, all strains are relatively low (see Table 4.1a). From the recorded strains, the impact appears to be local and only affects panel 20 (see Figure 4.1 for panel number description).

Using the shear modulus and structural properties of each member, the shear force (Table 4.1b) is calculated directly from the measured strains. The shear force difference (Table 4.1c) for the frames are derived by subtracting the shear force above the panel from the shear force below the panel. The shear force difference on the stringer is calculated by subtracting the forward value from the aft value. For those panels which include the stringer, the shear force difference on the frame is added to the shear force difference on the stringer. Further details of this analysis can be found in [2].

The maximum shear force difference for this impact is 53.7 kN and occurs on panel 20. Except for the load carried away on the stringer (panel 22), the remaining shear force differences are less than 26% of the peak measurement. The average shear force difference is about 4.6% of the peak measurement.

Ignoring cross influence between panels, the estimated pressure on panel 20 is 0.53 MPa. However, the calculated pressure for panel 20 (shown in Table 4.1d) is -27.3 MPa. The largest absolute pressure occurs on panel 21 directly above the panel thought to be loaded. Thus the cross influence terms appear to be too influential in the calculation of ice pressure.

Table 4.1 Pressure Calculated From a PhaseII Ice Impact Incident

Table 4.1a **5 March, 1987 10:51:05.99** **Micro Strain (με)**

Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
.25	1.97	-16.97	-2.20	-1.22	-1.23
16.03	-.98	-14.02	-2.32	-1.35	-2.70
10.35	-1.46	-12.57	0.00	-1.59	-3.50
17.33	48.12	-15.97	-18.33	-6.90	
-11.62	-18.04	-85.30	-.25	-1.83	5.27
-8.64	-16.92	-143.37	-11.88	-2.07	2.20
-4.43	23.20	150.37	8.95	-2.09	.24
0.00	23.90	139.07	25.63	-2.21	-.49

Table 4.1b **5 March, 1987 10:51:05.99** **Shear Force (kN)**

Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
.21	.36	-3.10	-.40	-.22	-.22
9.15	-.18	-2.56	-.42	-.25	-.49
4.59	-.27	-2.30	0.00	-.29	-.64
9.51	26.39	-8.76	-10.05	-3.79	
-5.15	-3.30	-15.59	-.04	-.33	.96
-3.83	-3.09	-26.20	-2.17	-.38	.40
-1.97	4.24	27.48	1.64	-.38	.04
0.00	4.37	25.41	4.68	-.40	-.09

Table 4.1c **5 March, 1987 10:51:05.99** **Shear Force Difference (kN)**

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
	8.93	-.54	.54	-.02	-.02	-.27
	-4.56	-.09	.27	.42	-.04	-.15
Stringer	-9.74	13.86	-48.45	-1.34	6.22	1.60
	1.32	.20	-10.61	-2.13	-.04	-.56
	1.87	7.33	53.68	3.81	-0.00	-.36
	1.97	.13	-2.07	3.05	-.02	-.13

Table 4.1d **5 March, 1987 10:51:05.99** **Pressure (MPa)**

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
	15.7416	-2.4893	-2.4109	1.3950	.4713	.1253
	-5.7219	1.0841	5.4574	-.0793	-.7510	.3290
Stringer	-21.9721	-1.3252	-14.9045	.7663	1.9721	-1.0914
	2.9801	2.7523	37.0619	-1.5706	.0150	.0972
	4.2117	-3.1136	-27.3100	-.6149	.2742	-.9146
	4.4325	3.0642	14.4943	1.4060	-.0941	.5530

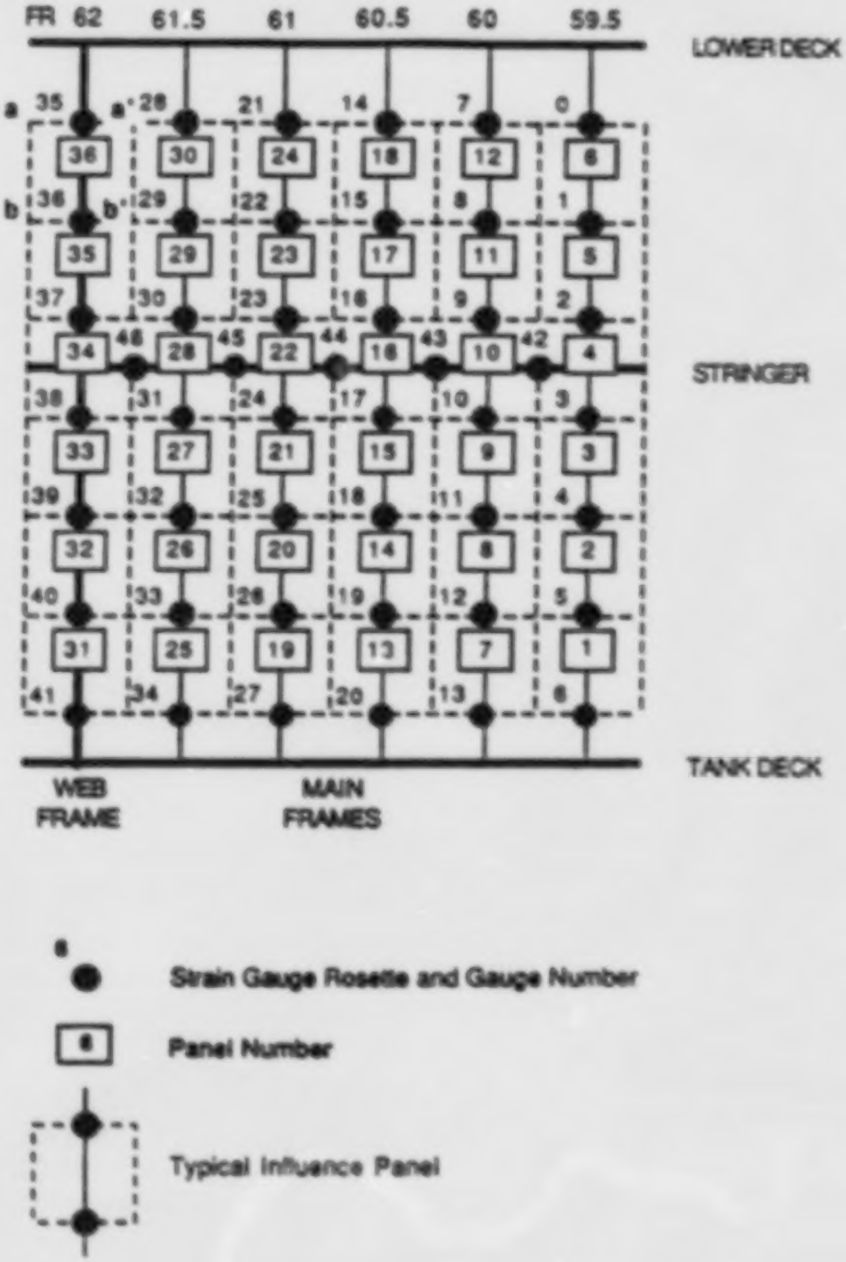

FR 62
61.5
61
60.5
60
59.5
LOWER DECK
STRINGER
TANK DECK
WEB FRAME
MAIN FRAMES
a
a'
b
b'
Strain Gauge Rosette and Gauge Number
Panel Number
Typical Influence Panel

Figure 4.1 Strain Gauge Locations on Idealized View of Ice Load Panel

4.4 Alternative Approach to Pressure Calculation

A less accurate method of estimating pressures from the available data is to use the shear difference approach for larger panel dimensions. The global shear force difference can be multiplied by a single calibration factor to convert the measurement into an approximate single panel pressure.

Defining the total panel to be bounded by the lower deck, the tank deck, Frame 59.25 and Frame 61.75. Therefore, the global shear force difference is:

$$V_{global} = V_6 + V_{13} + V_{20} + V_{27} + V_{34} - V_0 - V_7 - V_{14} - V_{21} - V_{28} + V_{42} - V_{46} \qquad \text{-4.1}$$

where V_{global} = global shear force difference
V_i = shear force at gauge i
(see Figure 4.1 for gauge location)

Therefore, assuming that only one panel is loaded, the individual panel pressure is calculated as:

$$P = C \times V_{global} \qquad \text{-4.2}$$

where P = Individual panel pressure
C = Calibration constant (which is determined using the FE model)

The advantage this approach has over the previous approach is that local inaccuracies in the FEM will be less important. However, this approach assumes that only one panel is loaded at any instant in time and that the applied load is not near a boundary.

Determining an average calibration constant from the 30 load cases supplied by the FE contractor, this simplified pressure algorithm reproduces the 30 applied pressures with a standard deviation of 34% of the mean as shown in Figure 4.2. The results are given in Appendix E. The largest errors occur on panels adjacent to the boundary.

As an independent check on the accuracy of this algorithm, the strains from the 6 calibration loads reported in [2] were used to calculate the panel pressures. These results are found in Appendix F and are included in Figure 4.2. The estimated pressures ranged between 29% and 223% of the applied load. Although the standard deviation and the range were moderately large, the errors from this method appears better than the previous method. As noted above, the largest errors occurred when the load was applied near a boundary.

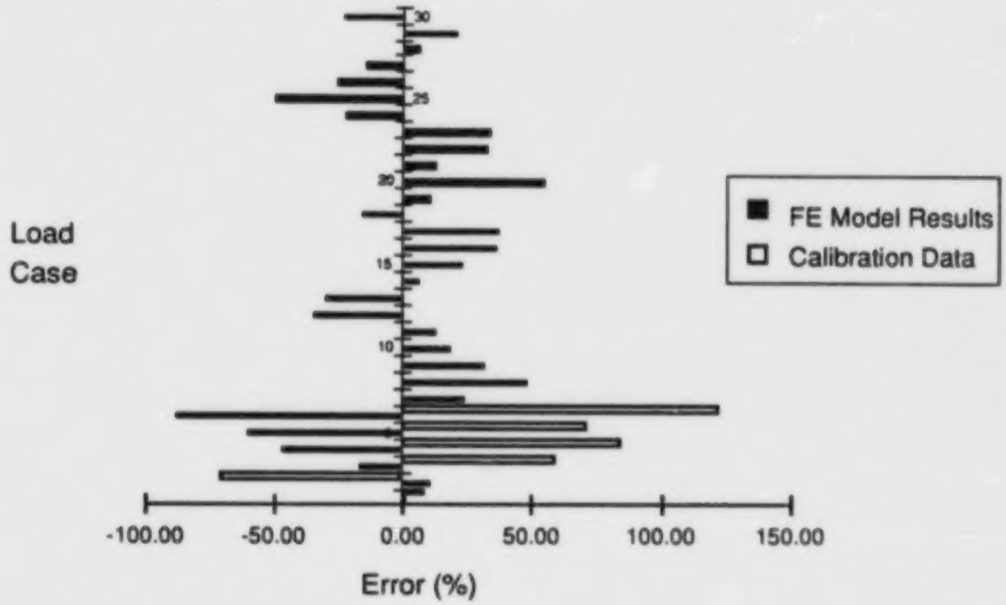


Figure 4.2 Approximate Single Panel Pressure Area

A pressure of 2.5 MPa is predicted when this method is applied to the strain data shown in Table 4.1. Applying this method to the remaining sets of field measurements results in a maximum pressure of 8.7 MPa occurring on February 27, 1987 at 7:02:51.71. However, this measurement appears to be a multiple impact. The largest single panel pressure was 5.5 MPa.

4.5 Location of the Neutral Axis

The location of a beam's neutral axis is where the first moment of the beam's sectional area equals zero. On a grillage structure such as a ship's hull, the location of the frame's neutral axis is further complicated by the effective breadth of the shell plating which varies widely depending upon the reference used.

In phase I, the decision was made to place two axial gauges on the neutral axis at an orientation of ±45° from the neutral axis. With this configuration, the two axial gauges measured the two principal strains. From Mohr's circle, the shear strain can be determined by calculating half the difference between the two principal strains. Assuming the two gauges measure the principal strains, the shear strain can be determined by measuring the difference in these two axial gauges. However, because of an error made in calculating the position of the neutral axis and in the assumptions required to estimate the effective breadth of the shell plating, concern arose regarding the location of the neutral axis and the resulting effect on the measurement of the shear strain.

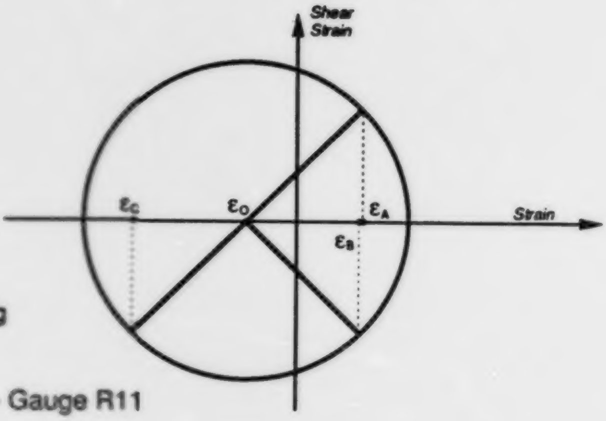
In phase III, some strain gauge rosettes were added to the structure to assist in refining the FE model. The rosettes measure the complete two dimensional state of strain and do not rely on any assumptions such as the location of the neutral axis. It is now possible to determine the magnitude of error caused by the miscalculation of the neutral axis.

Figure 4.3 shows Mohr's circle for the two dimensional state of strain measured by gauge R11 and R12 for a 1000 kg load applied at calibration point 2L. The strain values are obtained by performing linear regression on the calibration data listed in Appendix B.

Calibration point 2L is on frame 60. Gauges R11 and R12 are located 389 mm below the calibration point on the forward and aft side of frame 60 respectively. As discussed in Appendix A, gauge R11-A is oriented along the frame's axis, gauge R11-B is +45° from the frame's axis and gauge R11-C is -45° from the frame's axis. Gauge R12-A is on the opposite side of the frame and aligned with gauge R11-A. Similarly, gauge R12-B is aligned with gauge R11-C and gauge R12-C is aligned with gauge R11-B.

$\varepsilon_A = 3.488$ με/1000 kg
$\varepsilon_B = 3.276$ με/1000 kg
$\varepsilon_C = -8.665$ με/1000 kg

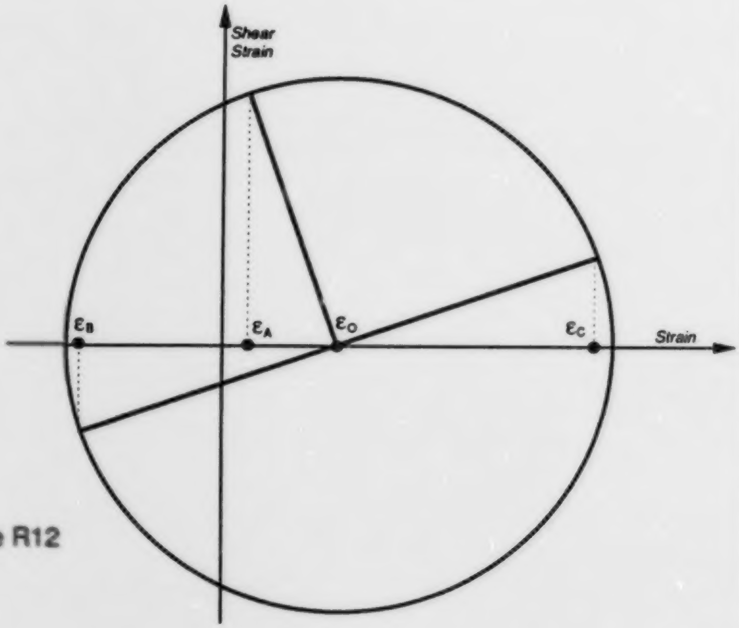
$\gamma = 8.595$ με/1000 kg
$\varepsilon_O = -2.695$ με/1000 kg
$1/2(\varepsilon_B - \varepsilon_C) = 5.971$ με/1000 kg


Shear Strain
Strain
ε_C
ε_O
ε_A
ε_B

a) Calibration Location 2L - Gauge R11

$\varepsilon_A = 1.431$ με/1000 kg
$\varepsilon_B = -7.515$ με/1000 kg
$\varepsilon_C = 19.830$ με/1000 kg

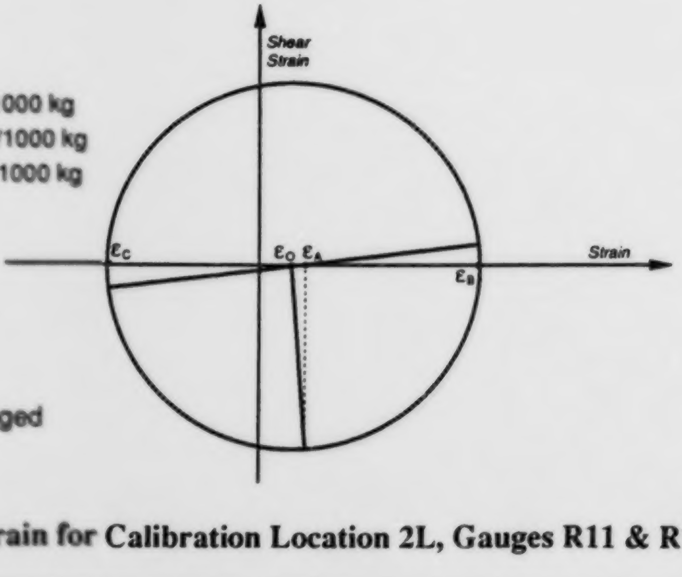
$\gamma = -14.466$ με/1000 kg
$\varepsilon_O = 6.158$ με/1000 kg
$1/2(\varepsilon_B - \varepsilon_C) = -13.673$ με/1000 kg


Shear Strain
Strain
ε_B
ε_A
ε_O
ε_C

b) Calibration Location 2L - Gauge R12

$\varepsilon_A = [(\varepsilon_A)_1 + (\varepsilon_A)_2]/2 = 2.460$ με/1000 kg
$\varepsilon_B = [(\varepsilon_B)_1 + (\varepsilon_C)_2]/2 = 11.553$ με/1000 kg
$\varepsilon_C = [(\varepsilon_C)_1 + (\varepsilon_B)_2]/2 = -8.090$ με/1000 kg

$\gamma = 9.849$ με/1000 kg
$\varepsilon_O = 1.731$ με/1000 kg
$1/2(\varepsilon_B - \varepsilon_C) = 9.822$ με/1000 kg


Shear Strain
Strain
ε_C
ε_O
ε_A
ε_B

c) Calibration Location 2L
- Gauges R11 & R12 Averaged

Fig.4.3 Mohr's Circle of Strain for Calibration Location 2L, Gauges R11 & R12

If the gauges were placed at the neutral axis and centreline of the frame, subjecting the frame to pure bending would result in gauges R11-A and R12-A measuring 0 microstrain. Gauges R11-B, R11-C, R12-B and R12-C would measure the shear strain. Since the frame is non-symmetric, pure bending results in a torsional deformation of the frame. The torsional deformation results in axial and shear strains being measured by the gauges.

Figure 4.3a shows the two dimensional state of strain on the forward side of frame 60. In this situation, the shear strain is 8.595 microstrain. However, calculating half the difference between R11-B and R11-C results in a shear strain of 5.971 microstrain. Thus using gauges R11-B and R11-C to estimate the shear strain results in an error of 44%.

Similarly, Figure 4.3b shows the two dimensional state of strain on the aft side of frame 60. Gauges R12-B and R12-C results in a shear strain error of 5.8%.

In phase II, a brick finite element model showed that the torsional deformation of the frames can be corrected by averaging strains on both sides of the frame. By averaging the strains, the torsional shear and lateral bending components are removed from the measurements. The resulting values are shear and axial strains due to the applied load.

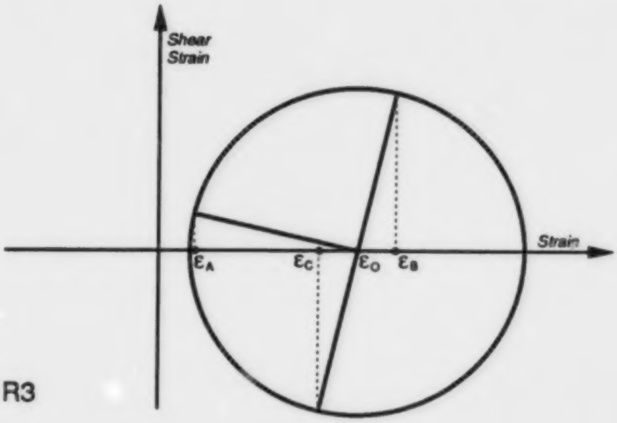
Figure 4.3c shows the results of averaging the measurements from the strain rosettes. In this situation, the shear strain is 9.849 microstrain. Using only the gauges at ±45°, the shear strain would be 9.822 microstrain. Thus the averaged strains from both sides of the frame results in an error of 0.03 microstrain or 0.3%. This shows that for a load applied at calibration point 2L, gauges R11 and R12 are relatively close to the neutral axis.

Figure 4.4 shows Mohr's circle for the two dimensional state of strain measured by gauges R3 and R4 for a 1000 kg load applied at calibration point 2L. Calibration point 2L is on frame 60. Gauges R3 and R4 are located 211 mm above the calibration point on the forward and aft side of frame 60½ (the frame adjacent to the loaded frame). The gauge orientation is the same as described above.

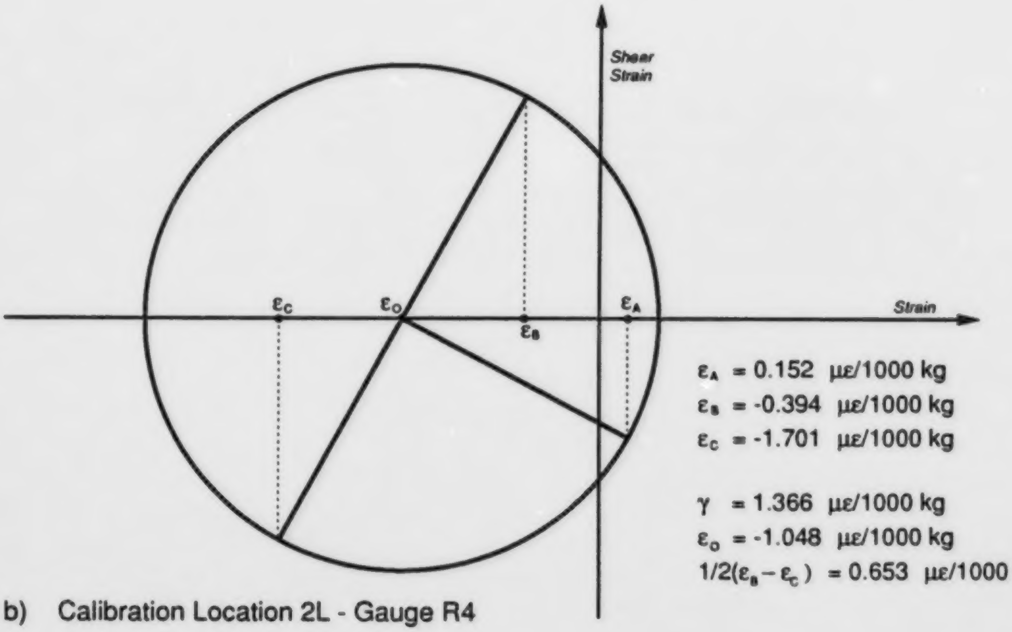
Because of a different load path, gauges R3 and R4 are significantly different from that shown above for gauges R11 and R12. On the loaded frame (gauges R11 and R12), the gauges on the forward side measure a slight compressive strain. The gauges on the aft side measure a slight tensile strain. Adjacent to the loaded frame (gauges R3 and R4), the gauges on the forward side all measure a tensile strain. The gauges on the aft side measure mostly a compressive strain. When gauges R11 and R12 are averaged, the resulting strain is comparable with the measured strain. When gauges R3 and R4 are averaged, the resulting strain is significantly less than the measured strain. Thus the majority of the strain on the unloaded frames is due to torsional and transverse bending deformations.

ε_A = 0.193 με/1000 kg
ε_B = 1.255 με/1000 kg
ε_C = 0.854 με/1000 kg

γ = 0.885 με/1000 kg
ε_O = 1.055 με/1000 kg
$1/2(\varepsilon_B - \varepsilon_C)$ = 0.201 με/1000 kg


Shear Strain
Strain
εA
εC
εO
εB

a) Calibration Location 2L - Gauge R3


Shear Strain
εC
εO
εA
εB
Strain

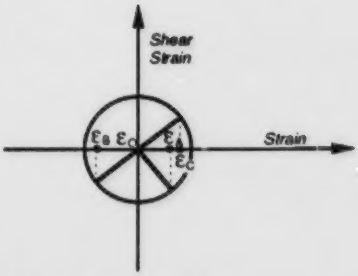
ε_A = 0.152 με/1000 kg
ε_B = -0.394 με/1000 kg
ε_C = -1.701 με/1000 kg

γ = 1.366 με/1000 kg
ε_O = -1.048 με/1000 kg
$1/2(\varepsilon_B - \varepsilon_C)$ = 0.653 με/1000 kg

b) Calibration Location 2L - Gauge R4

$\varepsilon_A = [(\varepsilon_A)_3 + (\varepsilon_A)_4] = 0.1.173$ με/1000 kg
$\varepsilon_B = [(\varepsilon_B)_3 + (\varepsilon_C)_4] = -0.223$ με/1000 kg
$\varepsilon_C = [(\varepsilon_C)_3 + (\varepsilon_B)_4] = 0.230$ με/1000 kg

γ = 0.282 με/1000 kg
ε_O = 0.003 με/1000 kg
$1/2(\varepsilon_B - \varepsilon_C)$ = -0.227 με/1000 kg


Shear Strain
εB
εC
εA
εC
Strain

c) Calibration Location 2L - Gauges R3 & R4 Averaged

Fig. 4.4 Mohr's Circle of Strain for Calibration Location 2L, Gauges R3 & R4

As shown in Figure 4.4a, the torsional deformation causes an error of 341% in estimating the shear strain using gauges R3-B and R3-C. Similarly Figure 4.4b shows that the torsional deformation causes an error of 109%. However, when gauges R3 and R4 are averaged, the error in the estimated shear strain is 0.06 microstrain or 24.8%. Therefore, the magnitude of the error on the unloaded frames is comparable with on the loaded frame. However, due to the lower strains measured on the unloaded frames, the error is more significant.

The analysis described above was repeated for all rosettes with reasonable calibration results. As the selection criteria, any gauge with a correlation of less than 0.96 was disregarded. The conclusions from this analysis agree with those given above. The average error in the estimated shear strain using gauges B and C was 273% with a standard deviation of 1134%. Correcting for the torsional deformation by averaging the strains on both sides of the frame results in an average error of 0.10 microstrain or 6.8%. The largest percentage error occurred on non-loaded frames.

It is concluded that the error in the location of the neutral axis is insignificant in the measurement of the shear strain provided that appropriate corrections are made for the torsional deformation of the frames.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

1. A controlled point-load calibration of the hull of the MV Cape Brier has been performed. Accurate measurement of loading point and direction were made which will allow correction for situations where the physical configuration prevented ideal load alignment.

2. A calibration matrix developed by an independent contractor from the calibration results when applied to measured strain data from earlier full scale ice impact measurements, through a strain/pressure conversion algorithm that had previously proven successful [3], produced unbelievable calculations of pressure in both magnitude and location. No further re-analysis of the field data was pursued. Calculated ice pressures were more than the ice failure strength.

3. It is concluded that the off-diagonal terms in the calibration matrix representing this structure are of too great a significance to allow the calculation technique to provide unique and accurate solution with anything less than a complex FE model.

4. The strain data measured in phase II appears to be valid. A simplified pressure algorithm produced believable ice pressures, leading us to conclude that the measurement and transformation technique is valid if a suitable calibration matrix can be developed.

5. For a structure of this type whose stiffness of response is such that the effect of local loads does not remain local, the magnitude of the numerical model representing the structure may be prohibitively large. Alternate numerical modelling techniques may therefore be required.

6. The error in the location of the neutral axis is insignificant in the measurement of the shear strain. The strain gauge rosettes show that for a 1000 kg load, the average error is 0.10 microstrain or an average of 6.8% of the actual shear strain.

7. This project, when considered with previous instrumentation work conducted on various vessels, indicates the degree to which the nature of the structure as well as the load might affect the selection of a cost effective instrumentation and analysis approach.

5.2 Recommendations

1. To determine ice loads on the MV Cape Brier from measured data, an alternate approach should be taken. Reformulating the numerical model using the Boundary Integral Method reduces a 3-D problem into a 2-D problem. Consequently, the size of the model is reduced or conversely, the complexity of the model can be increased for the same CPU costs.

2. A study to provide guidelines about the type of measurement system, the detail of the numerical modelling and the calibration procedure is required for a range of structural configurations and load types.

REFERENCES

[1] Daley, C.G., Harwood, M., Perchanok, M., "Measurement of Ice Loads on Fishing Vessels", TP 6046E, 1984.

[2] Daley, C., Howard, D., Frere, D., "Measurement of Ice Forces on Small Vessels - Volume I - Technical Report", TP 9451E, August 1988.

[3] Daley, Claude G., St. John, James W., Seibold, Frederick, Bayly, Ian, "Analysis of Extreme Ice Loads Measured on USCGC Polar Sea", SNAME Transactions, Vol. 92, 1984, pp. 241-252.

[4] DesRochers, C., Croker, J., "Refinement of Finite Element Model for Measurement of Ice Forces on Fishing Vessels", Martec Limited, January 1990.

APPENDIX A

Gauge Locations and Reference Designations

A.0 GAUGE LOCATIONS and REFERENCE DESIGNATIONS

A.1 Pre-existing Gauges

The previously installed gauges from Phases I and II were positioned in a rectangular matrix covering frames 59.5 to 62 from 0.33m to 2.30m above the tank deck as measured along the frame web axis (see Figure A.1). Between frames 59.5 and 61.5 gauges were installed such that at any location a pair of gauges was positioned on the forward side of a frame, and a second pair of gauges was located on the after side of a frame. Gauges were located only on the after side of Web Frame 62, and only on the top side of the stringer.

The gauge reference designation for each gauge is composed of four characters plus a hyphen.

For frame gauges:

character	range	explanation
1	1 - 6	frame # (1=fr59.5, 6=fr62)
2	A - G	vertical position on frame (A=top)
3	A / F	forward or aft side of frame
4	Y / Z	primary measurement direction

For stringer gauges:

1	S	stringer gauge
2	1 - 5	frame # (1=fr59.5, 5=fr61.5)
3 & 4	FO/FI	measurement direction: Fwd Outboard or Fwd Inboard

Some gauge designation examples are:

1C-FZ	Frame 59.5, vertical position C, Fwd side, Z direction
5E-AY	Frame 61.5, vertical position E, Aft side, Y direction
S2-FI	Frame 60, measuring Fwd Inboard direction
S4-FO	Frame 61, measuring Fwd Outboard direction

Figure A.2 summarizes the direction convention for the frame and stringer gauges. Gauge location measurements are shown in Figures A.3, A.4, and A.5.

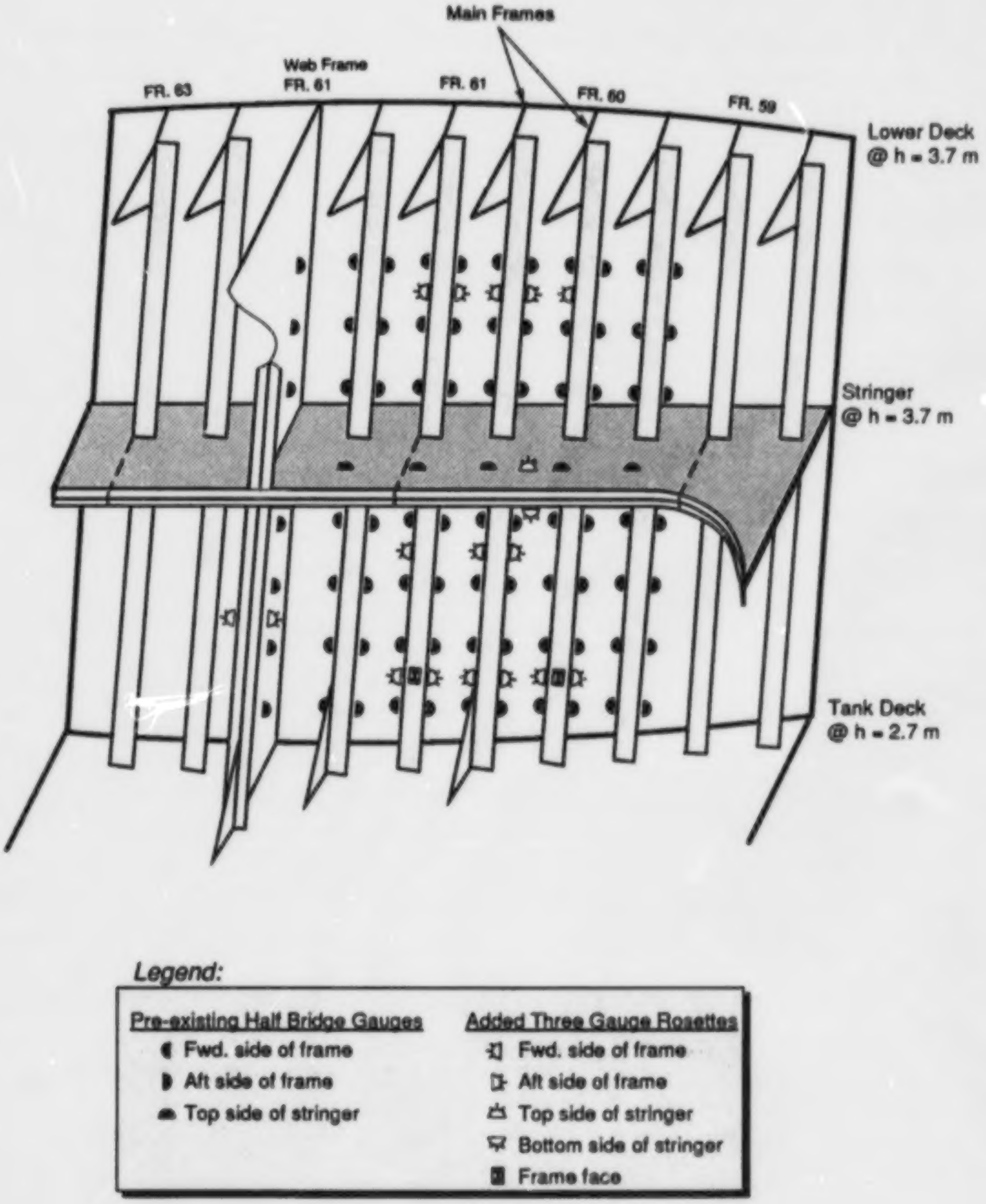
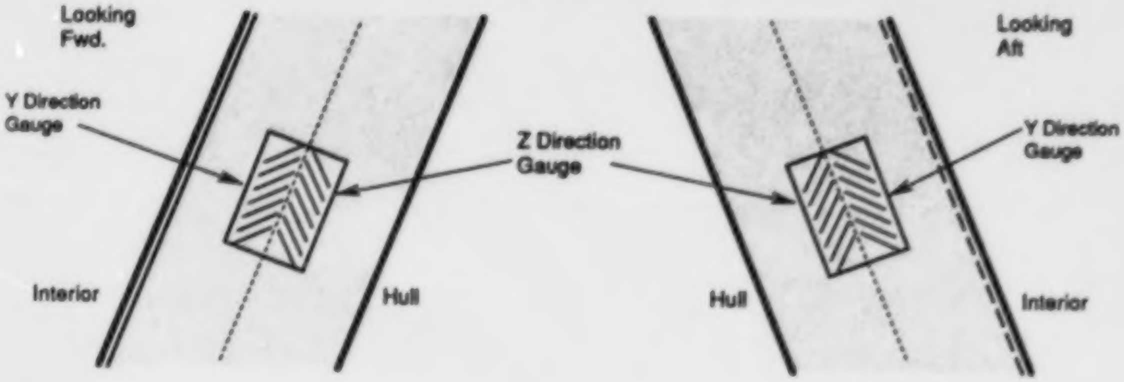

Main Frames
Web Frame
FR. 61
FR. 63
FR. 61
FR. 60
FR. 59
Lower Deck
@ h = 3.7 m
Stringer
@ h = 3.7 m
Tank Deck
@ h = 2.7 m
Legend:
Pre-existing Half Bridge Gauges
Fwd. side of frame
Aft side of frame
Top side of stringer
Added Three Gauge Rosettes
Fwd. side of frame
Aft side of frame
Top side of stringer
Bottom side of stringer
Frame face

Figure A.1 Strain Gauge Locations from Inside Dry Tank

Frame Guages


Looking Fwd.
Y Direction Gauge
Z Direction Gauge
Interior
Hull
Hull
Interior
Looking Aft
Y Direction Gauge

Stringer Gauges

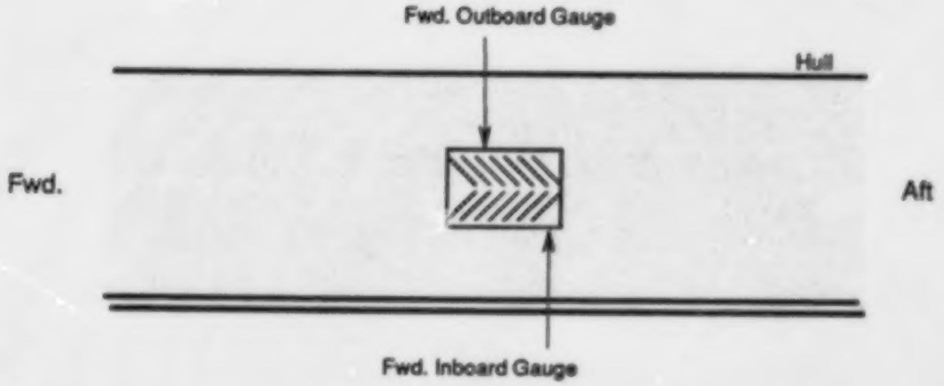
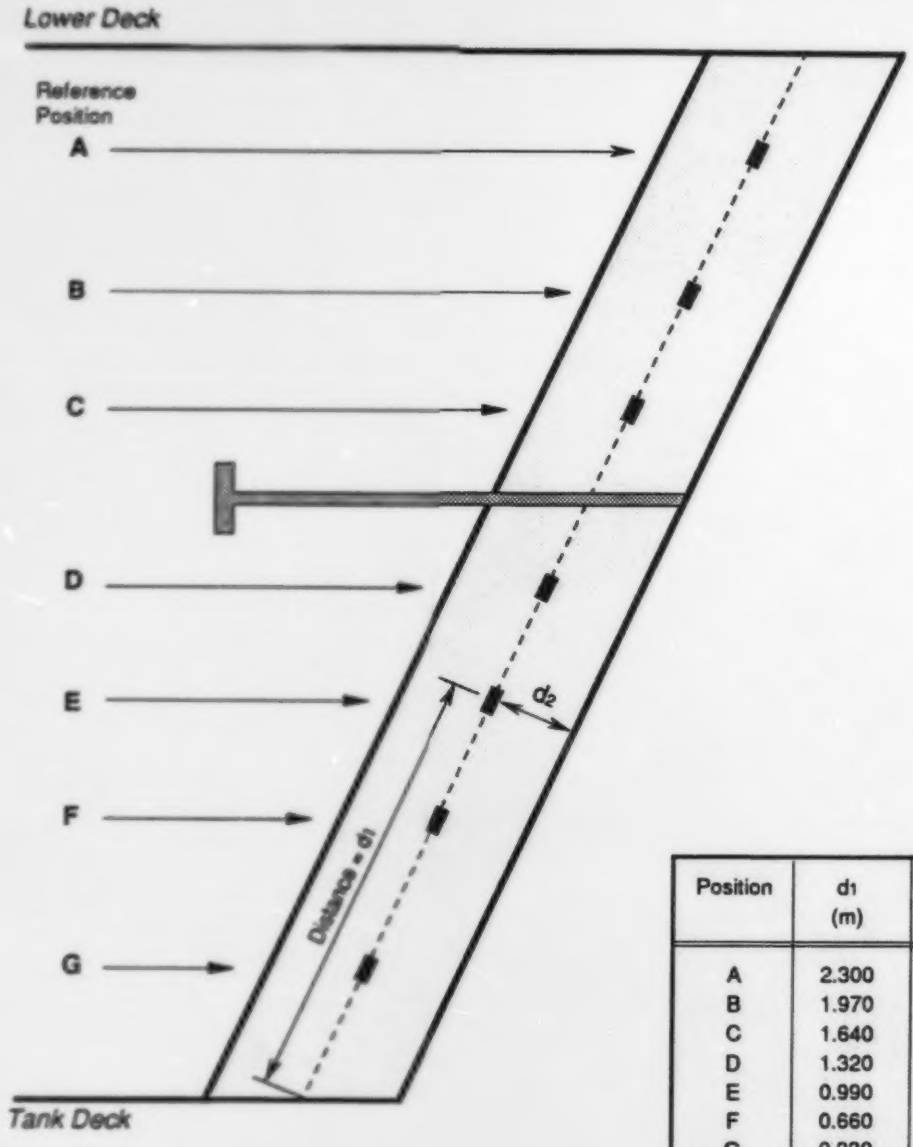

Fwd. Outboard Gauge
Hull
Fwd.
Aft
Fwd. Inboard Gauge

Figure A.2 Direction Convention for Pre-existing Gauges


Lower Deck
Reference Position
A
B
C
D
E
F
G
d2
Distance = d1
Tank Deck

Position	d1 (m)	d2 (m)
A	2.300	0.081
B	1.970	0.081
C	1.640	0.081
D	1.320	0.081
E	0.990	0.081
F	0.660	0.081
G	0.330	0.081

d1 - Tank deck to gauge, measured along beam axis.
d2 - Hull interiour surface to gauge line.

Figure A.3 Main Frame Gauge Locations, Frames 59.5 - 61.5 (Frames 1-5)

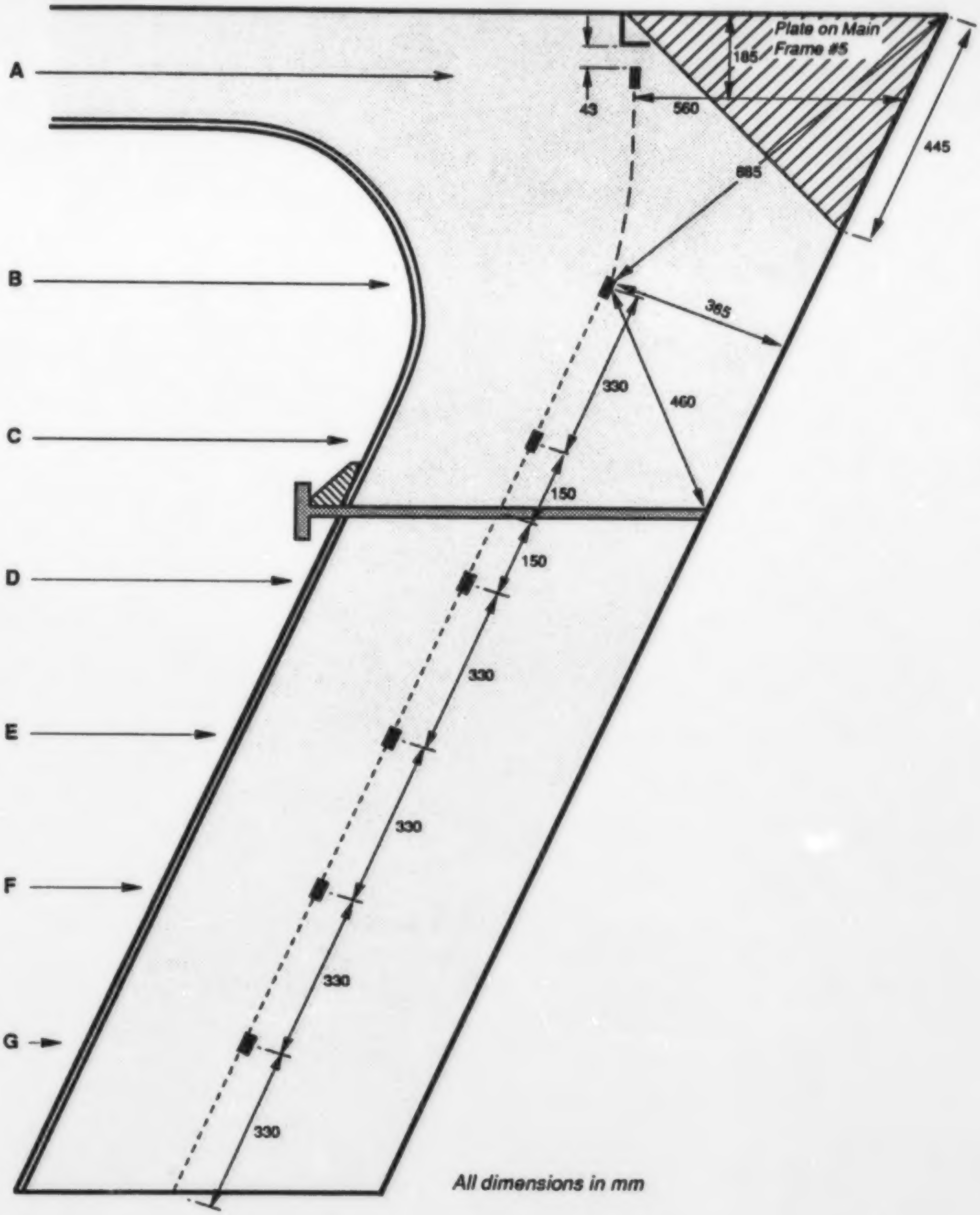


Plate on Main Frame #5
185
43
560
445
685
A
B
C
D
E
F
G
385
330
460
150
150
330
330
330
330
All dimensions in mm

Figure A.4 Web Frame Gauge Locations

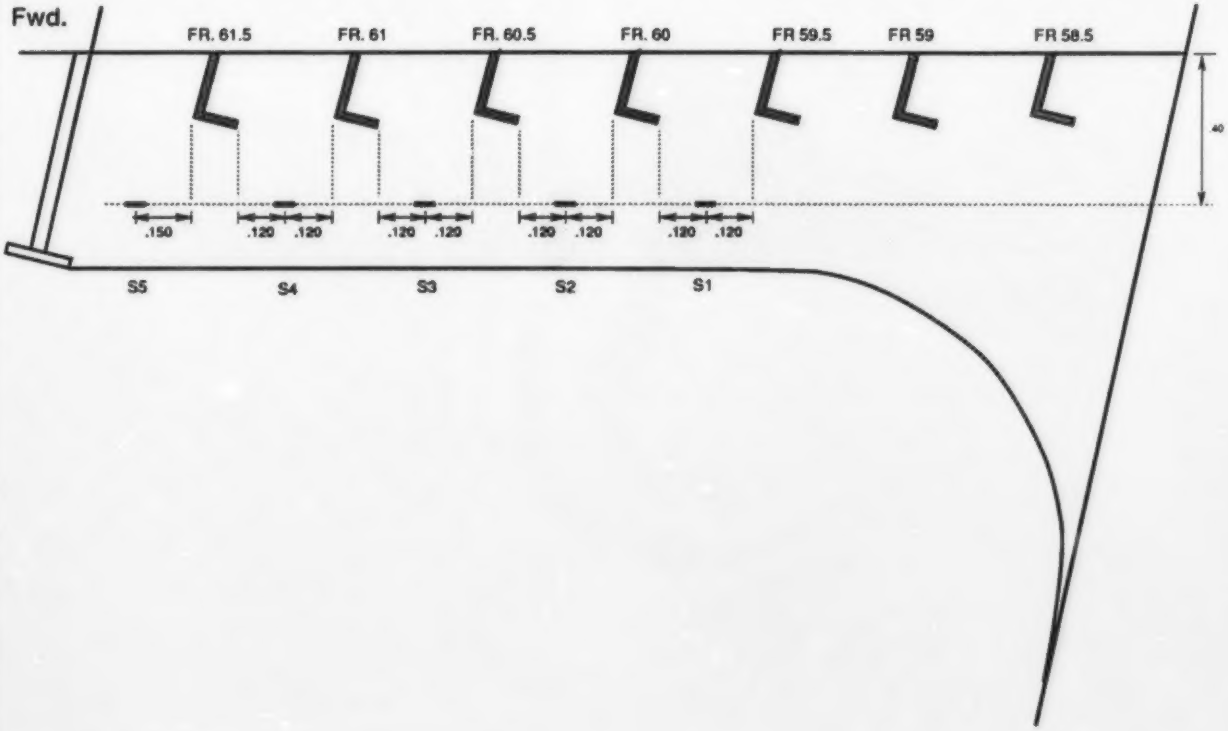

Fwd.
FR. 61.5
FR. 61
FR. 60.5
FR. 60
FR 59.5
FR 59
FR 58.5
.40
.150
.120
.120
.120
.120
.120
.120
.120
.120
S5
S4
S3
S2
S1

Figure A.5 Stringer Gauge Locations

A.2 New Rosette Gauges

The rosette gauges were installed in accordance with the direction of the FE model contractor as closely as possible. In some instances, the ideal locations that had been selected were not achievable due to clearance problems. In those cases, alternative locations were chosen. Figure A.1 indicates the general location of the rosette gauge installation along with their respective gauge number.

The gauge designation of the rosette gauges is straight forward:

character	range	explanation
1	R	Rosette
2 & 3	01-20	gauge number
4	A - C	measurement direction designator

For example R04-C, designates rosette gauge number 4, measuring in the 'C' direction. Figure A.6 shows the measurement direction convention used for the rosette gauges, and Figure A.7 shows the measured gauge locations.

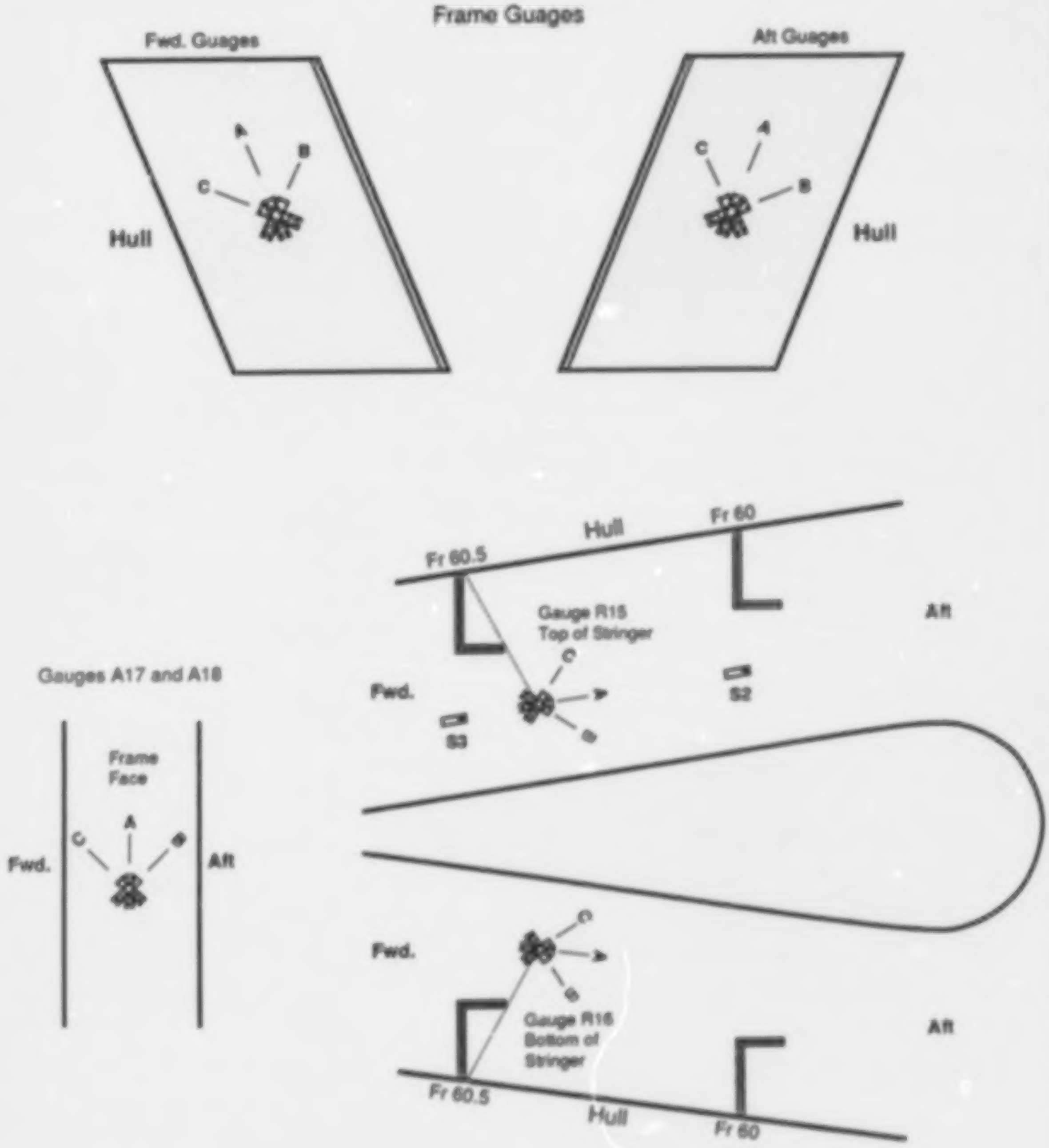
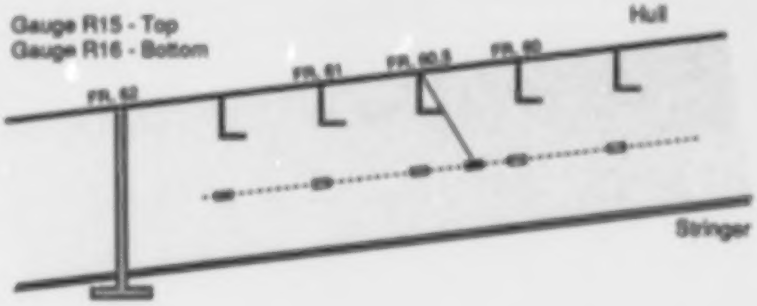
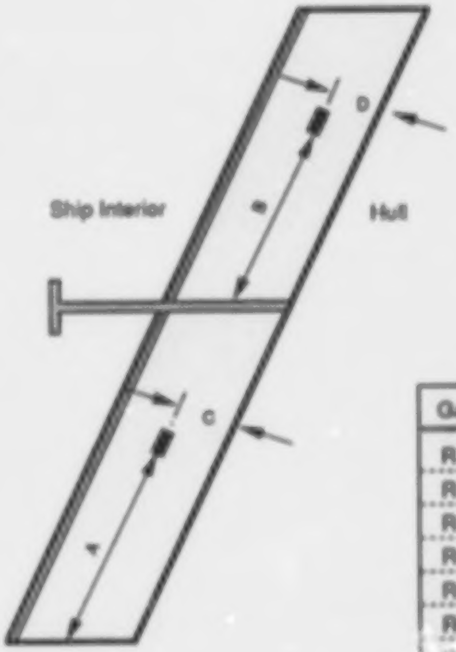
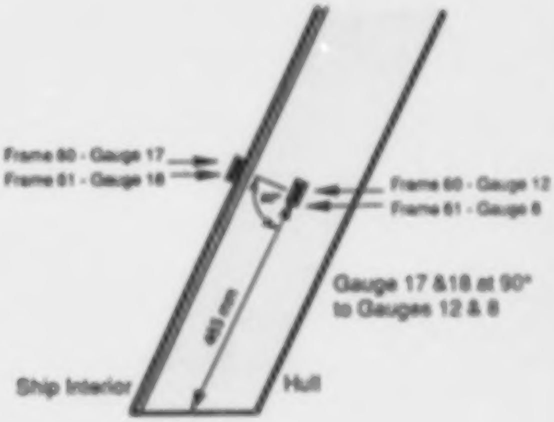

Frame Guages
Fwd. Guages
A
B
C
Hull
Aft Guages
C
A
B
Hull
Gauges A17 and A18
Frame
Face
Fwd.
C
A
B
Aft
Fr 60.5
Hull
Fr 60
Gauge R15
Top of Stringer
C
Fwd.
S3
S2
Aft
Fwd.
C
Gauge R16
Bottom of
Stringer
Aft
Fr 60.5
Hull
Fr 60

Figure A.6 Rosette Gauge Orientation


Gauge R15 - Top
Gauge R16 - Bottom
Hull
FR. 62
FR. 61
FR. 60.5
FR. 60
Stringer


D
B
Ship Interior
Hull
C
A


Frame 60 - Gauge 17
Frame 61 - Gauge 18
Frame 60 - Gauge 12
Frame 61 - Gauge 8
465 mm
Gauge 17 &18 at 90°
to Gauges 12 & 8
Ship Interior
Hull

Gauge	Frame	Side	A (mm)	B (mm)	C (mm)	D (mm)
R 01	60.5	Fwd.	465		81	
R 02	60.5	Aft	465		81	
R 03	60.5	Fwd.	1065		81	
R 04	60.5	Aft	1065		81	
R 05	60.5	Fwd.		585		80
R 06	60.5	Aft		690		80
R 07	61	Fwd.	465		81	
R 08	61	Aft	465		81	
R 09	61	Fwd.		630		80
R 10	61	Aft		625		80
R 11	60	Fwd.	465		81	
R 12	60	Aft	465		81	
R 13	60	Fwd.		625		80
R 14	61	Fwd.	1105			
R 19	62	Fwd.	795		149.2	
R 20	62	Aft	795		149.2	

Figure A.7 Rosette Gauge Locations

APPENDIX B

Raw Data

Electrical Shunt Calibration Results

Physical Calibration Results

```
SHUNT CALIBRATION: ASHNT1

CH   GAUGE      GF     ZERO1      + CAL
 0   1A-AZ    2.05     181.6     1912.7
 1   1B-AZ    2.05     133.1     1861.4
 2   1C-AZ    2.05      97.5     1822.3
 3   1D-AZ    2.05     153.8    -1578.6
 5   1F-AZ    2.01     119.8     1857.1

 7   1G-AZ    2.05     -68.8     1663.4
10   2B-AZ    2.05     -56.2     1664.1
11   2C-AZ    2.01      40.0     1752.4
12   2D-AZ    2.05     145.2     1881.2
14   2E-AZ    2.05    -137.9     1604.6

15   2F-AZ    2.01    -151.1     1585.6
16   2G-AZ    2.01     -84.8     1651.6
17   3A-AZ    2.01     171.7     1892.7
18   3B-AZ    2.01     106.1     1834.1
19   3C-AZ    2.05     163.5     1897.7

20   3D-AZ    2.01     -41.5     1680.9
21   3E-AZ    2.05     -27.3     1730.0
22   3F-AZ    2.05     -23.2     1712.7
24   4A-AZ    2.01     -67.8     1669.4
25   4B-AZ    2.01      51.3     1780.6

28   4D-AZ    2.05     110.1     1844.2
29   4E-AZ    2.05     198.0     1942.3
30   4F-AZ    2.05    -100.7     1632.5
32   4G-AZ    2.05      48.2     1775.6
33   5A-AZ    2.05    -136.6     1624.1

34   5B-AZ    2.05    -210.0     1549.5
35   5C-AZ    2.05     -63.2     1644.8
36   5D-AZ    2.05      54.4     1765.1
37   5E-AZ    2.05      81.2     1758.9
39   5F-AZ    2.05     -45.0     1684.0

42   5G-AZ    2.05     212.1     1939.0
46   R03-A    2.09      72.4     1783.7
51   R07-A    2.09    -103.2     1627.4
56   R10-A    2.09      18.8     1751.4
61   R14-A    2.09     -47.8     1657.5

63   LOAD     2.01      16.2       71.4
```

```
SHUNT CALIBRATION: ASHNT1

  - CAL      ZERO2     uS/ADU   GAUGE
-1532.4     184.4      .0599   1A-AZ
-1574.9     138.0      .0601   1B-AZ
-1611.9      98.7      .0602   1C-AZ
 1874.9     152.6     -.0598   1D-AZ
-1613.7     120.3      .0607   1F-AZ

-1811.9     -88.5      .0598   1G-AZ
-1782.5     -69.2      .0602   2B-AZ
-1676.4      33.1      .0616   2C-AZ
-1598.0     141.1      .0595   2D-AZ
-1873.5    -135.0      .0594   2E-AZ

-1882.7    -152.4      .0608   2F-AZ
-1813.6     -86.4      .0609   2G-AZ
-1546.2     171.2      .0613   3A-AZ
-1617.0     107.2      .0611   3B-AZ
-1569.0     163.9      .0596   3C-AZ

-1769.8     -42.3      .0611   3D-AZ
-1740.9     -26.1      .0595   3E-AZ
-1736.1     -23.0      .0599   3F-AZ
-1800.0     -69.6      .0608   4A-AZ
-1676.0      50.7      .0610   4B-AZ

-1601.9     109.0      .0600   4D-AZ
-1530.3     196.2      .0595   4E-AZ
-1813.8    -102.8      .0600   4F-AZ
-1652.7      47.7      .0603   4G-AZ
-1855.2    -137.1      .0594   5A-AZ

-1936.8    -207.8      .0592   5B-AZ
-1752.3     -49.3      .0606   5C-AZ
-1669.1      55.5      .0598   5D-AZ
-1645.4      62.4      .0610   5E-AZ
-1788.3     -44.7      .0595   5F-AZ

-1521.1     211.2      .0597   5G-AZ
-1676.3      68.9      .0586   R03-A
-1832.2    -102.9      .0586   R07-A
-1722.5      14.5      .0584   R10-A
-1798.5     -50.5      .0587   R14-A

  -41.3      16.2     1.0692   LOAD

SEP-03-89 RSHUNT= 1652000
```

```
SHUNT CALIBRATION  BSHNT:              SHUNT CALIBRATION  BSHNT:

CH   GAUGE      GF     ZERO1      + CAL      - CAL     ZERO2      uS/ADU   GAUGE
 0   1A-AY    2.05      64.6     1787.4    -1651.2      65.3      .0601   1A-AY
 1   1B-AY    2.05     124.9     1847.4    -1593.7     124.3      .0601   1B-AY
 2   1C-AY    2.05      81.7     1803.9    -1632.0      81.2      .0602   1C-AY
 3   1D-AY    2.05     -76.0    -1806.9     1643.5     -79.3     -.0598   1D-AY
 5   1F-AY    2.01      59.0     1793.7    -1677.6      53.9      .0608   1F-AY

 7   1G-AY    2.05      71.6     1810.1    -1663.3      70.0      .0595   1G-AY
10   2B-AY    2.05     204.7     1943.2    -1533.0     205.4      .0594   2B-AY
11   2C-AY    2.01      11.5     1741.9    -1716.9      10.8      .0609   2C-AY
12   2D-AY    2.05    -138.6     1598.7    -1860.6    -144.5      .0595   2D-AY
14   2E-AY    2.05     -20.4     1718.4    -1759.9     -20.9      .0594   2E-AY

15   2F-AY    2.01     156.0     1891.6    -1574.8     154.9      .0608   2F-AY
16   2G-AY    2.01     -96.6     1618.6    -1844.4    -160.8      .0620   2G-AY
17   3A-AY    2.01     -25.8     1694.0    -1714.9      13.3      .0611   3A-AY
19   3C-AY    2.05     163.8     1896.1    -1568.7     163.3      .0597   3C-AY
21   3E-AY    2.05     197.5     1930.6    -1509.0     192.5      .0602   3E-AY

22   3F-AY    2.05     -90.7     1641.4    -1813.0     -91.0      .0598   3F-AY
24   4A-AY    2.01      91.8     1829.1    -1637.4      93.0      .0608   4A-AY
25   4B-AY    2.01      65.8     1793.4    -1659.4      64.9      .0610   4B-AY
28   4D-AY    2.05     103.3     1833.5    -1616.8     103.4      .0599   4D-AY
29   4E-AY    2.05     223.4     1957.5    -1502.4     223.3      .0597   4E-AY

30   4F-AY    2.05       8.7     1749.9    -1717.5       8.9      .0596   4F-AY
32   4G-AY    2.05     179.3     1888.6    -15[illegible].6     176.9      .0607   4G-AY
33   5A-AY    2.05     -40.4     1672.1    -1762.7     -41.4      .0602   5A-AY
34   5B-AY    2.05    -134.4     1616.3    -1835.4    -135.8      .0599   5B-AY
36   5D-AY    2.05     152.2     1877.8    -1547.6     152.9      .0603   5D-AY

37   5E-AY    2.05     174.1     1885.9    -1520.5     177.5      .0606   5E-AY
39   5F-AY    2.05     -35.7     1747.9    -1681.3      47.5      .0580   5F-AY
42   5G-AY    2.05      24.8     1750.6    -1699.6      23.0      .0599   5G-AY
43   R01-B    2.09       3.6     1733.2    -1708.1      -5.9      .0591   R01-B
46   R03-B    2.09    -138.9     1586.0    -1841.0    -140.2      .0592   R03-B

47   R04-B    2.09     -23.0     1689.0    -1713.6     -21.2      .0595   R04-B
51   R07-B    2.09    -102.9     1622.7    -1830.7    -103.2      .0587   R07-B
52   R08-B    2.09     152.7     1871.3    -1570.9     150.4      .0589   R08-B
58   R11-B    2.09     112.9     1823.1    -1586.9     112.8      .0594   R11-B
60   R13-B    2.09      28.4     1752.3    -1695.6      27.0      .0588   R13-B

61   R14-B    2.09     -96.5     1627.7    -1816.5     -97.3      .0589   R14-B
63   LOAD     2.01      17.0      101.0      -93.1      20.3     1.0416   LOAD
```

```
SHUNT CALIBRATION  CSHNT1                            SHUNT CALIBRATION  CSHNT1

CH  GAUGE    GF   ZERO1     + CAL     - CAL     ZERO2      uS/ADU   GAUGE
 0  1E-AY   2.01  -188.0    1536.5   -1911.6    -188.2      .0611   1E-AY
 1  2A-AY   2.05  -111.1    1613.1   -1831.1    -110.6      .0600   2A-AY
 2  3D-AY   2.01   145.9    1866.4   -1567.6     146.0      .0614   3D-AY
 3  3G-AY   2.05  -121.2   -1853.0    1598.4    -119.7     -.0599   3G-AY
 5  R17-A   2.09  -176.4    1559.4   -1910.1    -176.5      .0584   R17-A

 7  R17-C   2.09     5.5    1741.0   -1732.0       3.5      .0584   R17-C
10  R09-A   2.09   156.0    1894.3   -1583.1     155.2      .0583   R09-A
11  R09-B   2.09    84.1    1817.9   -1649.9      83.9      .0585   R09-B
12  R09-C   2.09   103.8    1840.5   -1636.4     102.1      .0583   R09-C
14  R12-A   2.09  -143.2    1608.3   -1857.1    -112.3      .0580   R12-A

15  R12-B   2.09  -125.7    1607.0   -1861.8    -127.0      .0585   R12-B
16  R02-A   2.09    12.8    1745.3   -1716.3      12.6      .0585   R02-A
17  R02-B   2.09   -21.1    1704.0   -1744.6     -21.4      .0588   R02-B
18  R02-C   2.09   -75.4    1673.3   -1827.1     -77.3      .0579   R02-C
19  R05-A   2.09  -195.1    1535.7   -1932.6    -199.2      .0585   R05-A

21  R05-B   2.09   -67.9    1662.9   -1778.9     -54.9      .0587   R05-B
22  R05-C   2.09  -186.6    1543.1   -1915.5    -186.3      .0586   R05-C
24  R17-C   2.09   -80.6    1653.0   -1815.9     -80.6      .0584   R17-C
25  R18-A   2.09   121.1    1846.1   -1611.3     117.3      .0587   R18-A
27  R18-B   2.09    94.4    1814.3   -1628.2      93.9      .0589   R18-B

28  R18-C   2.09  -172.9    1556.1   -1900.5    -171.4      .0586   R18-C
30  R01-C   2.09    76.6    1813.5   -1654.7      79.0      .0584   R01-C
32  R12-C   2.09  -149.9    1564.0   -1869.2    -152.4      .0591   R12-C
33  R16-A   2.09    91.6    1820.5   -1632.1      91.4      .0587   R16-A
34  R16-B   2.09    88.0    1785.9   -1637.3      87.9      .0592   R16-B

36  R16-C   2.09   -32.8    1693.2   -1751.0     -32.9      .0589   R16-C
37  6F-AY   2.01   -36.2    1715.8   -1705.4     -20.1      .0613   6F-AY
39  6B-AY   2.01  -104.3    1626.0   -1830.3    -103.0      .0610   6B-AY
42  6C-AY   2.01    94.7    1818.4   -1614.8      95.3      .0614   6C-AY
43  6D-AY   2.01    90.1    1816.5   -1636.5      87.0      .0611   6D-AY

44  6E-AY   2.01    41.4    1760.5   -1678.4      42.8      .0613   6E-AY
46  R15-A   2.09   104.4    1824.3   -1606.3     111.9      .0590   R15-A
47  6A-AY   2.01    92.5    1820.3   -1632.2      91.8      .0611   6A-AY
48  6G-AY   2.01   156.2    1882.4   -1543.4     156.7      .0615   6G-AY
50  S3-FO   2.01    24.3    1752.4   -1698.8      24.0      .0611   S3-FO

51  S4-FO   2.01   -37.8    1688.5   -1765.5     -39.4      .0610   S4-FO
52  S5-FO   2.01   153.7    1871.1   -1544.2     152.4      .0617   S5-FO
56  R16-B   2.09  -105.2    1621.8   -1831.1    -103.3      .0587   R16-B
60  S1-FO   2.01   177.4    1892.2   -1525.7     177.3      .0617   S1-FO
61  S2-FO   2.01   120.3    1862.4   -1579.7     119.9      .0612   S2-FO

63  LOAD    2.01     -.9      96.4     -99.5      -1.1     1.0773   LOAD
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```
SHUNT CALIBRATION: DSHNT1

CH   GAUGE     GF     ZERO1      + CAL
 0   1E-AZ    2.01     87.7     1812.6
 1   2A-AZ    2.05    -35.4     1685.5
 2   3G-AZ    2.05     64.2     1791.8
 3   1A-FY    2.01    -29.2    -1761.6
 5   1B-FY    2.01   -195.1     1543.0

 7   1C-FY    2.01    -88.7     1649.1
10   R11-A    2.09   -209.0     1530.1
11   R11-C    2.09    -74.4     1656.9
12   R08-A    2.09    -48.9     1685.0
14   R08-C    2.09     77.1     1815.9

15   R06-A    2.09     38.2     1773.4
16   R19-A    2.09    162.1     1894.9
17   R19-B    2.09   -129.5     1593.6
18   R19-C    2.09   -140.3     1600.9
19   R20-A    2.09   -197.7     1536.1

21   R20-B    2.09   -112.1     1617.9
22   R20-C    2.09    107.3     1835.2
24   1D-FY    2.01   -146.6     1587.7
25   R14-C    2.09    -17.4     1708.9
27   R07-C    2.09    142.7     1860.9

28   R03-C    2.09     28.4     1755.0
29   R13-A    2.09   -214.3     1506.0
30   R13-C    2.09    -70.0     1654.4
32   R06-C    2.09    -96.4     1628.1
33   R04-A    2.09   -162.9     1566.4

34   R04-C    2.09    -83.4     1632.2
36   R10-B    2.09     92.2     1820.1
37   6F-AZ    2.01    -26.7     1696.2
39   6B-AZ    2.01     85.0     1793.8
42   6C-AZ    2.01     23.5     1747.0

43   6D-AZ    2.01   -223.7     1520.3
44   6E-AZ    2.01   -136.3     1616.8
47   R10-C    2.09     99.4     1834.1
48   6G-AZ    2.01   -173.0     1554.7
50   S3-FI    2.01   -146.7     1568.3

51   S4-FI    2.01   -167.1     1554.2
52   S5-FI    2.01   -107.0     1604.2
56   R15-C    2.09     33.0     1772.1
58   R01-A    2.09     89.0     1817.3
60   S1-FI    2.01   -142.7     1564.6

61   S2-FI    2.01    112.7     1846.0
63   LOAD     2.01     -4.6       96.1
```

```
SHUNT CALIBRATION: DSHNT1

  - CAL      ZERO2     uS/ADU    GAUGE
-1633.1      87.9      .0612    1E-AZ
-1750.8     -30.2      .0600    2A-AZ
-1639.4      67.4      .0602    3G-AZ
 1690.9     -29.1     -.0610    1A-FY
-1925.1    -195.2      .0608    1B-FY

-1823.8     -90.7      .0607    1C-FY
-1950.3    -212.3      .0583    R11-A
-1808.5     -76.2      .0585    R11-C
-1784.6     -50.0      .0584    R08-A
-1662.7      77.2      .0583    R08-C

-1695.0      38.1      .0584    R06-A
-1569.0     162.0      .0585    R19-A
-1852.9    -131.1      .0588    R19-B
-1881.8    -141.1      .0582    R19-C
-1931.7    -198.7      .0585    R20-A

-1820.1    -112.0      .0590    R20-B
-1621.0     106.5      .0587    R20-C
-1879.6    -148.2      .0608    1D-FY
-1745.9     -18.2      .0587    R14-C
-1580.0     142.1      .0589    R07-C

-1701.2      27.2      .0587    R03-C
-1936.4    -215.5      .0589    R13-A
-1799.0     -75.1      .0588    R13-C
-1817.4     -96.0      .0588    R06-C
-1891.6    -162.7      .0586    R04-A

-1807.2     -79.6      .0589    R04-C
-1633.3      92.1      .0587    R10-B
-1729.1     -14.0      .0613    6F-AZ
-1648.7      84.9      .0612    6B-AZ
-1703.5      21.3      .0611    6C-AZ

-1946.0    -223.8      .0608    6D-AZ
-1838.4    -136.0      .0610    6E-AZ
-1631.6     103.0      .0584    R10-C
-1896.4    -171.3      .0610    6G-AZ
-1879.4    -149.3      .0612    S3-FI

-1895.5    -168.0      .0611    S4-FI
-1830.0    -104.7      .0613    S5-FI
-1697.2      32.1      .0584    R15-C
-1639.9      90.4      .0586    R01-A
-1845.8    -143.1      .0614    S1-FI

-1613.1     112.7      .0609    S2-FI
  -99.5      -3.9     1.0745    LOAD
```

```
SHUNT CALIBRATION: ESHNT1                SHUNT CALIBRATION: ESHNT1
CH  GAUGE     GF    ZERO1    + CAL    - CAL    ZERO2    uS/ADU  GAUGE
 0  4C-AZ   2.01    -39.4   1683.8  -1758.0    -40.4    .0613  4C-AZ
 1  1A-FZ   2.01     66.9   1791.0  -1652.9     66.5    .0612  1A-FZ
 2  1B-FZ   2.01      3.6   1727.1  -1708.1      4.2    .0613  1B-FZ
 3  1C-FZ   2.01    226.4  -1498.6   1956.9    237.0   -.0612  1C-FZ
 5  1D-FZ   2.01     61.0   1796.9  -1672.0     61.1    .0608  1D-FZ

 7  2E-FZ   2.01    -86.6   1652.1  -1821.5    -85.9    .0607  2E-FZ
10  1E-FZ   2.01      7.8   1756.2  -1727.1      7.6    .0606  1E-FZ
11  1F-FZ   2.01    140.2   1863.7  -1597.7    140.1    .0605  1F-FZ
12  1G-FZ   2.01   -115.3   1626.1  -1846.2   -114.8    .0607  1G-FZ
14  3E-FZ   2.01    116.2   1856.1  -1620.6    115.4    .0606  3E-FZ

15  3F-FZ   2.01   -100.6   1635.9  -1832.1   -101.8    .0608  3F-FZ
16  2A-FZ   2.01     65.0   1798.0  -1664.1     64.6    .0609  2A-FZ
17  2B-FZ   2.01    -98.5   1623.9  -1819.9   -102.3    .0613  2B-FZ
18  2C-FZ   2.05     45.8   1782.4  -1702.2     39.6    .0594  2C-FZ
19  2D-FZ   2.01    -72.5   1670.9  -1795.8    -65.1    .0607  2D-FZ

21  4A-FZ   2.05    -71.5   1655.1  -1787.1    -79.3    .0602  4A-FZ
22  4B-FZ   2.05     88.4   1822.0  -1627.7     89.6    .0599  4B-FZ
24  2F-FZ   2.01    162.0   1898.0  -1568.7    161.0    .0608  2F-FZ
25  2G-FZ   2.01    -10.0   1719.5  -1735.4    -10.6    .0610  2G-FZ
27  3A-FZ   2.01    -22.1   1698.8  -1739.5    -22.8    .0613  3A-FZ

28  3B-FZ   2.01     -4.4   1726.9  -1728.8     -4.8    .0610  3B-FZ
29  3C-FZ   2.01    -22.9   1701.6  -1742.0    -23.5    .0612  3C-FZ
30  3D-FZ   2.01     78.9   1807.1  -1641.1     79.2    .0611  3D-FZ
32  3G-FZ   2.01    -37.2   1687.4  -1747.0    -36.9    .0614  3G-FZ
37  5E-FZ   2.01   -103.1   1618.8  -1815.4   -101.1    .0613  5E-FZ

39  5F-FZ   2.01    152.0   1878.5  -1557.8    152.0    .0613  5F-FZ
42  5A-FZ   2.01    -17.3   1694.7  -1709.6    -18.5    .0619  5A-FZ
43  5B-FZ   2.01    -38.6   1688.4  -1761.8    -38.6    .0611  5B-FZ
46  5C-FZ   2.01     28.0   1753.4  -1685.4     28.1    .0613  5C-FZ
47  5G-FZ   2.01    113.2   1840.6  -1584.8    113.4    .0615  5G-FZ

48  5D-FZ   2.01     -2.3   1721.6  -1704.2     -2.0    .0615  5D-FZ
50  5F-AZ   2.01     87.2   1779.7  -1668.6     56.8    .0617  5F-AZ
51  4F-FZ   2.01    211.8   1911.9  -1518.7    214.5    .0614  4F-FZ
52  4G-FZ   2.01     94.4   1811.5  -1586.8     92.3    .0621  4G-FZ
56  4E-FZ   2.01    152.2   1862.5  -1567.4    151.6    .0611  4E-FZ

60  4C-FZ   2.05     88.2   1769.0  -1619.6     87.4    .0606  4C-FZ
61  4D-FZ   2.01    -15.6   1701.5  -1724.8    -18.5    .0616  4D-FZ
63  LOAD    2.01     14.4    108.4    -95.0     23.6    .9918  LOAD
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```
SHUNT CALIBRATION: FSHNT1

CH  GAUGE     GF    ZERO1     + CAL
 0  4C-AZ   2.01    -39.7    1698.1
 1  1A-FY   2.01    143.8    1879.3
 2  1B-FY   2.01   -117.2    1612.0
 3  1C-FY   2.01    -20.8   -1750.8
 5  1D-FY   2.01    -16.1    1731.6

 7  2E-FY   2.01     98.4    1850.1
10  1E-FY   2.01    225.8    1967.4
11  1F-FY   2.01     73.8    1816.6
12  1G-FY   2.01   -156.4    1581.5
14  3E-FY   2.01    186.2    1926.4

15  3F-FY   2.01    -18.5    1718.4
16  2A-FY   2.01    -68.1    1665.3
17  2B-FY   2.01     37.0    1761.7
18  2C-FY   2.05     85.0    1827.0
19  2D-FY   2.01     70.3    1804.9

21  4A-FY   2.05      4.1    1740.4
22  4B-FY   2.05    230.5    1961.2
24  2F-FY   2.01    -45.1    1692.2
25  2G-FY   2.01      6.1    1734.6
27  3A-FY   2.01   -201.6    1522.5

28  3B-FY   2.01    -36.9    1692.0
29  3C-FY   2.01    191.0    1937.0
30  3D-FY   2.01    -38.0    1699.4
32  3G-FY   2.01    -39.5    1686.4
37  5E-FY   2.01     27.0    1751.8

39  5F-FY   2.01     96.7    1822.3
42  5A-FY   2.01   -159.9    1560.2
43  5B-FY   2.01   -144.3    1578.3
46  5C-FY   2.01     73.4    1777.2
47  5G-FY   2.01    116.3    1847.2

48  5D-FY   2.01    -94.9    1628.5
50  5F-AZ   2.05     33.3    1756.3
51  4F-FY   2.01    -38.2    1688.9
52  4G-FY   2.01     47.1    1754.4
56  4E-FY   2.01     82.4    1788.2

60  4C-FY   2.05    170.5    1884.0
61  4D-FY   2.01    -32.8    1691.8
63  LOAD    2.01     11.9      96.5
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```
SHUNT CALIBRATION: FSHNT1

  - CAL      ZERO2      uS/ADU   GAUGE
-1766.6      -37.7      .0608    4C-AZ
-1589.3      142.5      .0608    1A-FY
-1839.6     -118.6      .0611    1B-FY
 1693.8      -20.0     -.0612    1C-FY
-1729.9        -.8      .0606    1D-FY

-1649.9       97.2      .0602    2E-FY
-1505.3      225.5      .0607    1E-FY
-1663.9       73.0      .0606    1F-FY
-1892.1     -158.7      .0607    1G-FY
-1549.6      184.7      .0607    3E-FY

-1749.0      -19.6      .0608    3F-FY
-1798.2      -68.3      .0609    2A-FY
-1683.2       35.6      .0612    2B-FY
-1652.2       87.4      .0594    2C-FY
-1660.1       72.0      .0608    2D-FY

-1702.4        4.9      .0600    4A-FY
-1493.2      229.9      .0598    4B-FY
-1775.0      -44.7      .0608    2F-FY
-1718.1        7.5      .0610    2G-FY
-1919.2     -202.5      .0613    3A-FY

-1762.1      -38.3      .0610    3B-FY
-1550.0      190.4      .0605    3C-FY
-1759.9      -37.6      .0609    3D-FY
-1753.6      -38.1      .0612    3G-FY
-1680.1       25.2      .0614    5E-FY

-1612.6       95.7      .0614    5F-FY
-1866.7     -161.0      .0615    5A-FY
-1850.4     -143.6      .0615    5B-FY
-1647.7       61.1      .0618    5C-FY
-1583.0      114.2      .0615    5G-FY

-1804.1      -95.3      .0614    5D-FY
-1678.7       33.6      .0602    5F-AZ
-1760.6      -36.2      .0611    4F-FY
-1642.8       44.1      .0621    4G-FY
-1640.3       80.2      .0615    4E-FY

-1527.4      160.4      .0608    4C-FY
-1746.5      -32.5      .0613    4D-FY
  -98.2       13.9     1.0712    LOAD
```

```
FILE: A-1L-1

READING    TONS       LBS      KG
   #1      3.63      7251     3289
   #2      5.33     10654     4833
   #3      6.90     13804     6262

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1A-AZ       4.3     6.7     8.0
 1   1B-AZ       3.4     4.9     6.4
 2   1C-AZ       1.0     1.4     1.9
 3   1D-AZ     -47.8   -69.8   -90.2
 5   1F-AZ      61.7    90.0   116.0

 7   1G-AZ      41.9    61.1    78.6
10   2B-AZ      -5.5    -8.0   -10.4
11   2C-AZ      -4.0    -5.7    -7.3
12   2D-AZ      -5.4    -7.9   -10.1
14   2E-AZ      -4.5    -6.5    -8.4

15   2F-AZ       1.2     1.8     2.2
16   2G-AZ       4.5     6.6     8.5
17   3A-AZ       -.6     -.9    -1.0
18   3B-AZ      -2.3    -3.4    -4.3
19   3C-AZ       1.9     2.7     3.6

20   3D-AZ       2.7     4.0     5.1
21   3E-AZ        .4      .6      .7
22   3F-AZ       1.4     2.2     2.8
24   4A-AZ       -.6    -1.0    -1.3
25   4B-AZ      -1.6    -2.4    -3.1

28   4D-AZ       1.1     1.7     2.1
29   4E-AZ        .7     1.0     1.3
30   4F-AZ       1.1     1.7     2.3
32   4G-AZ       1.9     2.2     2.9
33   5A-AZ       -.4    -1.2    -2.2

34   5B-AZ       -.2     -.2     -.2
35   5C-AZ       -.8    -1.9    -2.2
36   5D-AZ        .2      .4      .8
37   5E-AZ        .7      .8     1.0
39   5F-AZ       1.2     1.5     1.7

42   5G-AZ       1.0     1.0     1.3
46   R03-A        .5      .5      .6
51   R07-A        .1      .1      .2
56   R10-A        .4      .4      .4
61   R14-A        .8     1.2     1.5

 SEP-04-89    13:23  NO NOTES
```

```
FILE: A-1L-1

READING    TONS       LBS      KG
   #4      5.39     10776     4888
   #5      3.63      7251     3289
   #6      0.00         0        0

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1A-AZ       5.0     2.5    -2.9
 1   1B-AZ       5.2     3.7      .5
 2   1C-AZ       1.6     1.1      .3
 3   1D-AZ     -70.6   -47.7      .3
 5   1F-AZ      91.3    62.2      .1

 7   1G-AZ      62.0    42.3      .5
10   2B-AZ      -7.9    -5.2      .8
11   2C-AZ      -5.7    -3.8      .1
12   2D-AZ      -7.7    -5.1      .8
14   2E-AZ      -6.3    -3.9     1.1

15   2F-AZ       1.8     1.2      .1
16   2G-AZ       6.6     4.5      .1
17   3A-AZ       -.9     -.6     -.1
18   3B-AZ      -3.5    -2.7     -.2
19   3C-AZ       2.9     2.1      .4

20   3D-AZ       4.0     2.7      .1
21   3E-AZ        .7      .5      .2
22   3F-AZ       2.3     1.7      .4
24   4A-AZ      -1.0     -.7     -.1
25   4B-AZ      -2.5    -1.6      .1

28   4D-AZ       1.7     1.3      .5
29   4E-AZ       1.1      .8      .3
30   4F-AZ       1.7     1.3      .5
32   4G-AZ       2.3     2.0     1.7
33   5A-AZ      -1.1     -.4      .1

34   5B-AZ       0.0      .2      .7
35   5C-AZ      -2.1     -.5      .2
36   5D-AZ        .7      .4      .2
37   5E-AZ       1.0      .9      .7
39   5F-AZ       1.7     1.6     1.4

42   5G-AZ       1.0     1.0      .5
46   R03-A        .5      .4     -.2
51   R07-A        .1      .1     -.1
56   R10-A        .4      .3     -.1
61   R14-A       1.2      .9     -.1

SEP-04-89    13:23  NO NOTES
```

```
FILE: A-2L-1

READING    TONS       LBS      KG
   #1      3.61      7211    3271
   #2      5.33     10665    4837
   #3      6.84     13683    6206

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1A-AZ        .9     2.0     2.6
 1   1B-AZ      -1.3    -1.7    -2.4
 2   1C-AZ      -4.5    -6.6    -8.5
 3   1D-AZ      -1.5    -2.2    -2.9
 5   1F-AZ      12.5    18.3    23.7

 7   1G-AZ      10.5    15.3    19.7
10   2B-AZ      -2.5    -3.5    -4.5
11   2C-AZ       1.7     2.4     3.0
12   2D-AZ     -44.2   -64.5   -83.4
14   2E-AZ     -28.7   -42.1   -54.2

15   2F-AZ      68.6   100.6   129.8
16   2G-AZ      49.4    72.1    93.3
17   3A-AZ        .3      .4      .6
18   3B-AZ      -2.6    -3.8    -4.9
19   3C-AZ       2.4     3.6     4.7

20   3D-AZ      -4.5    -6.7    -8.6
21   3E-AZ        .3      .4      .5
22   3F-AZ      -3.8    -5.5    -7.2
24   4A-AZ       -.9    -1.3    -1.6
25   4B-AZ      -2.3    -3.2    -4.3

28   4D-AZ       2.7     3.9     5.1
29   4E-AZ       1.1     1.5     2.0
30   4F-AZ        .7     1.0     1.3
32   4G-AZ        .1      .1      .2
33   5A-AZ      -1.0    -1.2    -1.2

34   5B-AZ       -.6     -.7     -.6
35   5C-AZ      -1.1    -1.3    -1.3
36   5D-AZ       1.7     1.8     1.8
37   5E-AZ        .2      .2      .3
39   5F-AZ        .1      .8     1.4

42   5G-AZ        .4      .6      .8
46   R03-A       2.3     2.5     3.1
51   R07-A        .2      .3      .4
56   R10-A        .6      .9     1.1
61   R14-A        .1      .2      .4

SEP-04-89  11:38 - PULLED FROM
UPPER PADEYE AT #3
```

```
FILE: A-2L-1

READING    TONS       LBS      KG
   #4      5.24     10482    4755
   #5      3.57      7140    3239
   #6       .01        10       5

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1A-AZ       2.6     2.2     1.5
 1   1B-AZ      -1.7    -1.1      .3
 2   1C-AZ      -6.5    -4.3      .5
 3   1D-AZ      -2.1    -1.3      .5
 5   1F-AZ      18.4    12.6      .2

 7   1G-AZ      15.4    10.6      .8
10   2B-AZ      -3.3    -2.0      .7
11   2C-AZ       2.5     1.7      .3
12   2D-AZ     -64.5   -43.7      .4
14   2E-AZ     -41.2   -27.3     1.5

15   2F-AZ     100.7    68.5      .9
16   2G-AZ      72.4    48.9     -.1
17   3A-AZ        .4      .2     -.1
18   3B-AZ      -3.5    -2.3      .2
19   3C-AZ       3.8     2.7      .5

20   3D-AZ      -6.5    -4.4      .2
21   3E-AZ        .6      .4      .6
22   3F-AZ      -5.5    -3.6      .7
24   4A-AZ      -1.3    -1.0     -.3
25   4B-AZ      -3.4    -2.3     -.1

28   4D-AZ       4.1     2.9      .5
29   4E-AZ       1.6     1.2      .3
30   4F-AZ       1.0      .8      .4
32   4G-AZ        .1      .1      .1
33   5A-AZ      -1.2     -.9      .2

34   5B-AZ        .4      .6      .9
35   5C-AZ      -1.1     -.8      .5
36   5D-AZ       1.8     1.7      .7
37   5E-AZ        .2      .2      .1
39   5F-AZ       1.4      .8      .7

42   5G-AZ        .6      .4      .4
46   R03-A       2.6     2.3     1.8
51   R07-A        .3      .3      .2
56   R10-A       1.0      .7     0.0
61   R14-A        .3      .2      .1

SEP-04-89  11:38 - PULLED FROM
UPPER PADEYE AT #3
```

```
FILE: A-3L-1

READING    TONS      LBS      KG
   #1      3.83     7657    3473
   #2      5.46    10918    4952
   #3      7.39    14787    6707

CH  GAUGE    #1 uS  #2 uS  #3 uS

 0  1A-AZ      -.1    -.7    -.8
 1  1B-AZ     -1.9   -2.7   -3.5
 2  1C-AZ     -1.6   -2.2   -2.8
 3  1D-AZ      3.0    4.1    5.6
 5  1F-AZ       .2     .2     .3

 7  1G-AZ      -.5    -.7   -1.0
10  2B-AZ     -5.0   -7.3   -9.7
11  2C-AZ     -3.7   -5.3   -7.0
12  2D-AZ       .5     .7    1.1
14  2E-AZ      6.4    9.4   12.6

15  2F-AZ      8.4   12.2   16.3
16  2G-AZ      9.6   13.9   18.7
17  3A-AZ      5.3    7.7   10.2
18  3B-AZ      -.4    -.6    -.9
19  3C-AZ     -7.2  -10.4  -13.9

20  3D-AZ    -37.2  -53.7  -72.2
21  3E-AZ     68.7   99.2  121.3
22  3F-AZ    -31.9  -46.4  -62.0
24  4A-AZ       .3     .5     .6
25  4B-AZ     -2.6   -3.7   -5.0

28  4D-AZ     -2.8   -4.1   -5.5
29  4E-AZ     -5.9   -8.5  -11.4
30  4F-AZ      -.7    -.9   -1.3
32  4G-AZ      3.8    5.1    6.7
33  5A-AZ     -2.1   -3.0   -3.3

34  5B-AZ     -1.5   -1.6   -1.6
35  5C-AZ     -2.5   -2.9   -3.1
36  5D-AZ      2.5    3.6    4.7
37  5E-AZ       .5     .7     .9
39  5F-AZ       .1     .2     .5

42  5G-AZ      -.1     .3     .1
46  R03-A     11.7   16.4   22.9
51  R07-A      1.6    3.5    3.8
56  R10-A       .4     .4    1.1
61  R14-A       .2     .4    1.0

SEP-04-89 11:00 NOTHING TO NOTE
```

```
FILE: A-3L-1

READING    TONS      LBS      KG
   #4      5.52    11039    5007
   #5      3.59     7170    3253
   #6      -.02      -41     -18

CH  GAUGE    #4 uS  #5 uS  #6 uS

 0  1A-AZ      -.6    -.5    -.3
 1  1B-AZ     -2.6   -1.5     .4
 2  1C-AZ     -2.1   -1.3     .4
 3  1D-AZ      4.5    3.0     .4
 5  1F-AZ       .2     .1    -.1

 7  1G-AZ      -.7    -.4     .2
10  2B-AZ     -7.3   -4.6     .5
11  2C-AZ     -5.4   -3.4     .1
12  2D-AZ      1.0     .8     .7
14  2E-AZ      9.9    6.8    1.1

15  2F-AZ     12.5    8.1    -.1
16  2G-AZ     14.3    9.3    -.2
17  3A-AZ      8.0    5.2    -.2
18  3B-AZ      -.7    -.4     .1
19  3C-AZ    -10.7   -6.9     .4

20  3D-AZ    -55.3  -36.2     .2
21  3E-AZ    102.5   67.3    -.2
22  3F-AZ    -47.5  -31.0     .2
24  4A-AZ       .5     .4    -.1
25  4B-AZ     -4.0   -2.7    -.1

28  4D-AZ     -4.1   -2.5     .5
29  4E-AZ     -8.7   -5.6     .2
30  4F-AZ     -1.0    -.5     .3
32  4G-AZ      6.1    3.7     .1
33  5A-AZ     -2.9   -2.0     .3

34  5B-AZ     -1.0     .2     .2
35  5C-AZ     -2.8   -1.8     .7
36  5D-AZ      3.7    3.2     .1
37  5E-AZ       .7     .7     .2
39  5F-AZ       .2     .4     .1

42  5G-AZ       .1     .2     .1
46  R03-A     16.8   11.3    -.4
51  R07-A      3.5    1.3    -.2
56  R10-A       .4     .3    -.1
61  R14-A       .4     .1    -.3

SEP-04-89 11:00 NOTHING TO NOTE
```

```
FILE  A-4L-1

READING     TONS       LBS       KG
   #1       3.51      7019     3184
   #2       5.98     11961     5425
   #3       7.77     15536     7047

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1A-AZ       0.0       .2       .4
 1   1B-AZ       -.9     -1.7     -2.3
 2   1C-AZ       -.8     -1.7     -2.9
 3   1D-AZ       1.3      2.2      2.8
 5   1F-AZ        .8      1.3      1.8

 7   1G-AZ       1.7      2.8      3.5
10   2B-AZ      -3.5     -6.6     -8.9
11   2C-AZ      -2.6     -4.9     -6.7
12   2D-AZ       2.8      4.9      6.8
14   2E-AZ       2.7      4.8      6.4

15   2F-AZ        .6       .9       .8
16   2G-AZ       -.4       .7      -.5
17   3A-AZ        .4       .8      1.3
18   3B-AZ      -2.1     -3.8     -5.1
19   3C-AZ       3.8      6.6      6.5

20   3D-AZ       1.0      1.5      2.0
21   3E-AZ       8.7     14.7     19.5
22   3F-AZ       4.4      7.5     10.1
24   4A-AZ       5.5      9.7     12.8
25   4B-AZ       1.5      2.2      3.0

28   4D-AZ     -23.7    -40.7    -53.3
29   4E-AZ     -35.3    -61.0    -80.3
30   4F-AZ      58.3    100.2    125.3
32   4G-AZ      40.0     69.3     89.1
33   5A-AZ      -2.1     -2.1     -2.1

34   5B-AZ       -.2      -.4      -.4
35   5C-AZ      -3.2     -6.1     -8.6
36   5D-AZ      -4.0     -7.4     -9.0
37   5E-AZ      -1.5     -3.9     -5.4
39   5F-AZ       0.0       .1       .1

42   5G-AZ       3.7      7.0      8.2
46   R03-A       1.5      3.8      4.0
51   R07-A       5.2     10.5     12.1
56   R10-A      -1.4     -2.5     -4.1
61   R14-A       8.9     15.3     20.2

SEP-03-89  1ST CAL
```

```
FILE  A-4L-1

READING     TONS       LBS       KG
   #4       6.59     13176     5977
   #5       3.24      6472     2936
   #6        .14       284      129

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1A-AZ        .5       .5       .4
 1   1B-AZ      -1.8      -.7       .5
 2   1C-AZ      -2.5     -1.5      -.5
 3   1D-AZ       2.5      1.5       .4
 5   1F-AZ       1.4       .7      -.1

 7   1G-AZ       3.4      2.7      1.8
10   2B-AZ      -7.3     -3.6       .1
11   2C-AZ      -5.5     -2.8      -.1
12   2D-AZ       5.9      3.2       .9
14   2E-AZ       6.0      4.3      2.7

15   2F-AZ        .7       .7       .4
16   2G-AZ       -.2      3.5      3.7
17   3A-AZ       1.2       .8       .6
18   3B-AZ      -4.3     -2.1      0.0
19   3C-AZ       7.2      3.9       .8

20   3D-AZ       1.7       .9      -.1
21   3E-AZ      16.4      8.5       .5
22   3F-AZ       8.6      4.7      1.1
24   4A-AZ      10.9      5.9      1.0
25   4B-AZ       2.6      1.6       .4

28   4D-AZ     -44.5    -21.9       .4
29   4E-AZ     -67.2    -33.1       .8
30   4F-AZ     110.9     56.6      3.7
32   4G-AZ      75.4     38.4      1.2
33   5A-AZ      -2.1     -2.0      -.9

34   5B-AZ       -.3       .1       .1
35   5C-AZ      -7.1      8.8     -2.3
36   5D-AZ      -7.5     -3.6       .1
37   5E-AZ      -4.2     -1.0      3.5
39   5F-AZ        .2       .4       .5

42   5G-AZ       7.6      3.8       .4
46   R03-A       3.8      1.5      0.0
51   R07-A      10.8      4.4      -.1
56   R10-A      -3.6     -1.4      -.2
61   R14-A      16.8      8.7       .2

SEP-03-89  1ST CAL
```

```
FILE: A-5L-1

READING    TONS      LBS      KG
   #1      3.52      7049     3197
   #2      6.07     12143     5508
   #3      7.77     15536     7047

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AZ        .1      .2      .2
 1  1B-AZ      -.9    -1.6    -1.9
 2  1C-AZ      -.7    -1.2    -1.4
 3  1D-AZ       .8     1.4     1.9
 5  1F-AZ       .7     1.3     1.6

 7  1G-AZ       .5     1.1     1.5
10  2B-AZ     -2.7    -4.6    -6.0
11  2C-AZ     -2.0    -3.3    -4.1
12  2D-AZ      1.5     2.5     3.3
14  2E-AZ      1.7     2.8     3.8

15  2F-AZ      1.0     1.7     2.2
16  2G-AZ       .9     1.3     1.4
17  3A-AZ      -.3     -.5     -.7
18  3B-AZ     -1.6    -2.8    -3.7
19  3C-AZ      3.6     6.3     8.0

20  3D-AZ      2.8     4.8     6.2
21  3E-AZ       .3      .7     1.0
22  3F-AZ      1.9     3.4     4.4
24  4A-AZ       .5      .7      .7
25  4B-AZ     -1.8    -2.9    -3.8

28  4D-AZ      1.0     1.6     2.2
29  4E-AZ      4.0     7.0     9.1
30  4F-AZ     10.7    18.1    23.4
32  4G-AZ     10.9    16.9    22.4
33  5A-AZ      3.9     7.5     8.6

34  5B-AZ       .5      .5      .2
35  5C-AZ     -2.1    -4.4    -5.0
36  5D-AZ    -41.1   -69.2   -87.9
37  5E-AZ    -29.6   -52.7   -71.5
39  5F-AZ     65.8   111.7   119.6

42  5G-AZ     44.2    74.0    90.3
46  R03-A       .2      .2      .3
51  R07-A       .1      .1      .3
56  R10-A       .4      .5      .5
61  R14-A      1.3     2.5     3.3

SEP-03-89
```

```
FILE: A-5L-1

READING    TONS      LBS      KG
   #4      5.04     10077     4571
   #5      3.13      6269     2844
   #6       .03        51       23

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AZ        .1      .1      .1
 1  1B-AZ     -1.3     -.8      .1
 2  1C-AZ      -.8     -.3      .4
 3  1D-AZ      1.3     1.0      .4
 5  1F-AZ      1.2     1.0      .4

 7  1G-AZ      1.4     1.3     1.1
10  2B-AZ     -3.9    -2.5     -.1
11  2C-AZ     -2.6    -1.7     -.1
12  2D-AZ      2.1     1.6      .5
14  2E-AZ      3.1     2.6     1.0

15  2F-AZ      1.5     1.1      .3
16  2G-AZ       .6      .1     -.7
17  3A-AZ      -.6     -.3     -.1
18  3B-AZ     -2.5    -1.7     -.4
19  3C-AZ      5.4     3.7      .8

20  3D-AZ      4.3     3.0      .9
21  3E-AZ       .8      .8      .7
22  3F-AZ      3.1     2.0      .6
24  4A-AZ       .2     -.1     -.6
25  4B-AZ     -2.4    -1.5      .1

28  4D-AZ      1.6     1.3      .5
29  4E-AZ      6.0     3.9      .4
30  4F-AZ     15.2    10.0      .6
32  4G-AZ     13.5     9.1      .2
33  5A-AZ      5.3     3.7     -.1

34  5B-AZ      -.5     -.6     -.5
35  5C-AZ     -2.3    -2.0     -.1
36  5D-AZ    -56.9   -36.3      .1
37  5E-AZ    -43.5   -27.6     1.6
39  5F-AZ     90.0    59.6      .7

42  5G-AZ     59.5    38.2      .5
46  R03-A       .2      .2      .2
51  R07-A       .2      .1      .1
56  R10-A       .5      .2     -.2
61  R14-A      1.6     1.3     0.0

SEP-03-89
```

```
FILE: A-6L-1

READING    TONS        LBS        KG
   #1      3.56       7130      3234
   #2      5.61      11211      5085
   #3      6.90      13966      6335

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1A-AZ       -.2     -.2      .5
 1   1B-AZ       -.5     -.8    -1.1
 2   1C-AZ       -.5     -.8    -1.0
 3   1D-AZ        .3      .4      .5
 5   1F-AZ        .2      .4      .5

 7   1G-AZ        .4      .5      .4
10   2B-AZ      -1.7    -2.5    -3.1
11   2C-AZ      -1.0    -1.5    -1.9
12   2D-AZ        .6      .8     1.4
14   2E-AZ        .8     1.2     1.4

15   2F-AZ        .3      .5      .5
16   2G-AZ        .3      .4      .5
17   3A-AZ       -.1     -.1     0.0
18   3B-AZ      -1.0    -1.7    -1.8
19   3C-AZ       1.5     2.3     2.9

20   3D-AZ       1.0     1.5     2.0
21   3E-AZ        .9     1.1     1.4
22   3F-AZ        .7     1.1     1.6
24   4A-AZ       -.2     -.3     -.4
25   4B-AZ       -.9    -1.5    -1.8

28   4D-AZ        .8     1.3     1.4
29   4E-AZ       1.4     2.2     2.9
30   4F-AZ       1.3     2.0     2.3
32   4G-AZ        .4      .7     1.0
33   5A-AZ       -.2     -.3     -.4

34   5B-AZ       0.0     -.1     -.1
35   5C-AZ       -.5     -.8    -1.6
36   5D-AZ       1.1     2.6     3.2
37   5E-AZ       2.3     2.4     3.4
39   5F-AZ       2.3     3.2     5.0

42   5G-AZ       1.6     3.8     4.2
46   R03-A        .1      .1      .1
51   R07-A       -.3     -.6    -1.0
56   R10-A        .2      .2      .2
61   R14-A        .1     -.1     -.3

SEP-04-89  14:42  PULLED FROM
UPPER PADEYE #6
```

```
FILE: A-6L-1

READING    TONS        LBS        KG
   #4      8.51      17015      7718
   #5      6.42      12832      5821
   #6      3.70       7565      3432

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1A-AZ       5.9     8.3     9.8
 1   1B-AZ      -1.4    -1.3     -.8
 2   1C-AZ      -1.1     -.9     -.5
 3   1D-AZ        .5      .4      .3
 5   1F-AZ        .7      .5      .4

 7   1G-AZ        .4      .2      .2
10   2B-AZ      -3.8    -2.8    -1.6
11   2C-AZ      -2.3    -1.7     -.8
12   2D-AZ       1.8     1.8     1.7
14   2E-AZ       1.7     1.4     1.2

15   2F-AZ        .7      .5      .2
16   2G-AZ        .6      .4      .2
17   3A-AZ        .1      .1      .1
18   3B-AZ      -2.1    -1.5     -.8
19   3C-AZ       3.5     2.7     1.6

20   3D-AZ       2.2     1.6     1.1
21   3E-AZ       1.5     1.1      .7
22   3F-AZ       1.9     1.4      .8
24   4A-AZ       -.5     -.5     -.5
25   4B-AZ      -2.5    -2.0    -1.3

28   4D-AZ       1.8     1.4     1.0
29   4E-AZ       3.5     2.8     1.8
30   4F-AZ       2.6     1.9     1.1
32   4G-AZ       1.2      .4      .2
33   5A-AZ      -2.0     -.4     -.2

34   5B-AZ       -.1     0.0      .9
35   5C-AZ      -1.7    -1.6    -1.5
36   5D-AZ       3.6     3.2     1.7
37   5E-AZ       3.9     2.6     2.1
39   5F-AZ       6.0     4.3     2.6

42   5G-AZ       5.3     4.1     3.2
46   R03-A        .1     -.1     -.1
51   R07-A      -1.9    -1.3     -.6
56   R10-A        .2      .2      .1
61   R14-A       -.4     -.9     -.8

SEP-04-89  14:42  PULLED FROM
UPPER PADEYE #6
```

```
FILE: A-1U-1

READING     TONS        LBS         KG
    #1      3.42       6846       3106
    #2      5.19      10371       4704
    #3      6.90      13966       6335

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1A-AZ     -36.6    -55.5    -74.1
 1   1B-AZ      28.1     42.3     55.4
 2   1C-AZ      15.6     24.2     32.8
 3   1D-AZ      -1.6     -2.6     -3.5
 5   1F-AZ      -1.4     -2.1     -2.8

 7   1G-AZ      -1.0     -1.6     -2.1
10   2B-AZ      -4.2     -6.4     -8.5
11   2C-AZ       2.4      3.8      5.2
12   2D-AZ       1.4      2.3      3.0
14   2E-AZ        .7      1.1      1.5

15   2F-AZ        .1       .2       .2
16   2G-AZ       -.1      -.1      -.1
17   3A-AZ       -.4      -.5      -.7
18   3B-AZ      -1.0     -1.6     -2.1
19   3C-AZ        .6       .8      1.1

20   3D-AZ       1.0      1.5      1.8
21   3E-AZ        .6       .8      1.1
22   3F-AZ        .7      1.0      1.3
24   4A-AZ       -.4      -.7      -.9
25   4B-AZ       -.9     -1.3     -1.7

28   4D-AZ        .8      1.2      1.6
29   4E-AZ        .4       .6       .8
30   4F-AZ        .5       .8      1.1
32   4G-AZ        .5       .8      1.1
33   5A-AZ       -.2      -.3      -.4

34   5B-AZ       0.0      0.0      -.1
35   5C-AZ      -2.9     -3.5     -6.2
36   5D-AZ        .4       .4       .4
37   5E-AZ        .2       .3       .3
39   5F-AZ        .1       .1       .2

42   5G-AZ       0.0      0.0      0.0
46   R03-A        .1       .3       .4
51   R07-A       -.1      -.2      -.2
56   R10-A        .1       .2       .2
61   R14-A       0.0      0.0      0.0

SEP-04-89     13:40
```

```
FILE: A-1U-1

READING     TONS        LBS         KG
    #4      5.47      10948       4966
    #5      3.58       7150       3243
    #6      0.00          0          0

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1A-AZ     -58.9    -39.6     -2.6
 1   1B-AZ      44.5     29.2       .3
 2   1C-AZ      25.7     16.9       .3
 3   1D-AZ      -2.8     -1.7       .2
 5   1F-AZ      -2.3     -1.6      -.2

 7   1G-AZ      -1.6      -.8       .5
10   2B-AZ      -6.6     -4.2       .5
11   2C-AZ       4.0      2.6       .1
12   2D-AZ       2.4      1.7       .4
14   2E-AZ       1.4      1.2      1.1

15   2F-AZ        .1       .1      -.1
16   2G-AZ       -.1      -.2      -.2
17   3A-AZ       -.6      -.4      -.1
18   3B-AZ      -1.7     -1.1      -.2
19   3C-AZ        .9       .7       .2

20   3D-AZ       1.5      1.1       .1
21   3E-AZ        .9       .7       .3
22   3F-AZ       1.1       .7       .2
24   4A-AZ       -.9      -.7      -.4
25   4B-AZ      -1.4     -1.0      -.2

28   4D-AZ       1.3      1.0       .4
29   4E-AZ        .7       .5       .1
30   4F-AZ        .9       .7       .4
32   4G-AZ       1.0       .7       .1
33   5A-AZ       -.2      -.2       .1

34   5B-AZ       0.0       .1       .2
35   5C-AZ      -7.2     -7.7    -13.1
36   5D-AZ        .4       .4       .2
37   5E-AZ        .3       .3       .3
39   5F-AZ        .2       .1      0.0

42   5G-AZ        .1      0.0      0.0
46   R03-A        .3       .1      -.2
51   R07-A       -.2      -.2      -.1
56   R10-A        .2       .1      -.1
61   R14-A       -.1      -.1      -.1

SEP-04-89     13:40
```

```
FILE: A-2U-1

READING   TONS      LBS      KG
   #1     3.56     7130    3234
   #2     5.31    10624    4819
   #3     6.95    13905    6307

CH  GAUGE    #1 uS  #2 uS  #3 uS

 0  1A-AZ     -1.8   -2.5   -3.3
 1  1B-AZ     -2.5   -3.7   -4.7
 2  1C-AZ     10.8   14.7   18.8
 3  1D-AZ      1.4    2.3    2.9
 5  1F-AZ       .9    1.4    1.9

 7  1G-AZ       .7    1.0    1.4
10  2B-AZ    -22.6  -34.4  -45.6
11  2C-AZ     25.6   38.6   51.0
12  2D-AZ     -1.2   -1.8   -2.5
14  2E-AZ       .5     .9    1.3

15  2F-AZ      -.1     .1     .2
16  2G-AZ      -.2    -.1    -.1
17  3A-AZ     -3.1   -4.7   -6.1
18  3B-AZ      -.7   -1.3   -2.0
19  3C-AZ     -1.6   -2.3   -2.9

20  3D-AZ      1.1    2.1    3.1
21  3E-AZ      1.0    1.4    1.9
22  3F-AZ      1.6    2.2    2.9
24  4A-AZ     -1.3   -1.9   -2.5
25  4B-AZ     -1.0   -1.4   -1.9

28  4D-AZ      1.7    2.5    3.2
29  4E-AZ      1.0    1.4    1.8
30  4F-AZ      1.2    1.9    2.5
32  4G-AZ      1.2    1.6    3.3
33  5A-AZ      -.5    -.7   -1.1

34  5B-AZ      -.1    0.0    -.1
35  5C-AZ     -1.8   -1.9   -2.2
36  5D-AZ      1.0    1.2    2.3
37  5E-AZ       .6    1.9    2.0
39  5F-AZ       .9    2.3    2.3

42  5G-AZ       .3     .4     .5
46  R03-A       .2     .2     .4
51  R07-A      -.1    -.2    -.2
56  R10-A       .5     .7     .9
61  R14-A       .3     .6     .8

SEP-04-89   12:04 - PULLED FROM
UPPER PADEYE #3
```

```
FILE: A-2U-1

READING   TONS      LBS      KG
   #4     5.19    10371    4704
   #5     3.55     7100    3220
   #6     0.00        0       0

CH  GAUGE    #4 uS  #5 uS  #6 uS

 0  1A-AZ     -2.6   -1.8    -.4
 1  1B-AZ     -3.7   -2.4     .5
 2  1C-AZ     15.3   10.8     .5
 3  1D-AZ      2.4    1.9     .6
 5  1F-AZ      1.5    1.0    0.0

 7  1G-AZ      1.2    1.0     .6
10  2B-AZ    -36.6  -25.4     .7
11  2C-AZ     40.8   28.4     .3
12  2D-AZ     -1.8   -1.1     .5
14  2E-AZ      1.3    1.2    1.2

15  2F-AZ       .2     .1     .1
16  2G-AZ      -.1    -.1    -.1
17  3A-AZ     -4.8   -3.4    -.1
18  3B-AZ     -1.3    -.9    -.5
19  3C-AZ     -2.4   -1.6     .4

20  3D-AZ      2.3    1.3   -1.3
21  3E-AZ      1.5    1.2     .4
22  3F-AZ      2.5    1.9     .5
24  4A-AZ     -2.1   -1.6    -.2
25  4B-AZ     -1.5   -1.0     .1

28  4D-AZ      2.8    2.2     .7
29  4E-AZ      1.5    1.2     .4
30  4F-AZ      2.1    1.6     .5
32  4G-AZ      1.7    1.4     .7
33  5A-AZ      -.7    -.4    1.6

34  5B-AZ       .1     .1     .7
35  5C-AZ     -2.0    -.9     .1
36  5D-AZ      1.3    1.2     .2
37  5E-AZ      2.0    2.0     .2
39  5F-AZ      2.3    2.3    2.1

42  5G-AZ       .5     .4     .2
46  R03-A       .2     .2    -.1
51  R07-A      -.2    -.2    -.2
56  R10-A       .7     .5    -.1
61  R14-A       .7     .2    -.2

SEP-04-89   12:04 - PULLED FROM
UPPER PADEYE #3
```

```
FILE: A-3U-1

READING     TONS       LBS       KG
   #1       3.56      7120     3230
   #2       5.38     10766     4883
   #3       7.30     14594     6620

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AZ       -.2     -.5     -.4
 1  1B-AZ      -2.1    -3.0    -4.1
 2  1C-AZ      -2.2    -3.2    -4.3
 3  1D-AZ       2.2     3.2     4.4
 5  1F-AZ       1.5     2.4     3.1

 7  1G-AZ       1.4     2.0     2.7
10  2B-AZ      -3.5    -5.4    -7.2
11  2C-AZ        .5      .7      .9
12  2D-AZ       2.9     4.5     5.9
14  2E-AZ       3.0     4.6     6.2

15  2F-AZ       1.8     2.7     3.7
16  2G-AZ       1.3     2.1     2.7
17  3A-AZ     -11.6   -17.7   -23.5
18  3B-AZ     -20.5   -31.1   -42.5
19  3C-AZ     -45.3   -69.6   -95.7

20  3D-AZ       -.2      .1      .2
21  3E-AZ        .4      .7     1.4
22  3F-AZ        .7     1.3     2.2
24  4A-AZ      -6.6    -9.9   -13.3
25  4B-AZ        .3      .5      .8

28  4D-AZ       3.4     5.1     7.0
29  4E-AZ       1.6     2.4     3.3
30  4F-AZ       1.8     2.6     3.4
32  4G-AZ       1.6     3.0     3.4
33  5A-AZ      -1.0    -2.7    -3.1

34  5B-AZ       -.1     -.1     -.1
35  5C-AZ      -2.2    -2.7    -3.6
36  5D-AZ        .8     1.4     2.0
37  5E-AZ       2.0     2.3     2.5
39  5F-AZ       2.0     2.9     3.3

42  5G-AZ       1.6      .4     1.4
46  R03-A       -.2     -.1      .1
51  R07-A       -.1     -.1     -.2
56  R10-A       0.0     0.0     0.0
61  R14-A        .1      .3      .4

SEP-04-89  - 3RD CAL OF DAY -
NOTHING TO NOTE 10:40
```

```
FILE: A-3U-1

READING     TONS       LBS       KG
   #4       5.18     10361     4700
   #5       3.43      6857     3110
   #6       -.01       -10       -5

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AZ       -.2     -.5    -1.2
 1  1B-AZ      -2.8    -1.6      .6
 2  1C-AZ      -2.9    -1.7      .7
 3  1D-AZ       3.3     2.3      .5
 5  1F-AZ       2.3     1.5     0.0

 7  1G-AZ       2.1     1.6      .5
10  2B-AZ      -5.1    -3.1      .7
11  2C-AZ        .8      .5      .2
12  2D-AZ       4.5     3.2     1.0
14  2E-AZ       4.9     3.6     1.2

15  2F-AZ       2.7     1.8     -.1
16  2G-AZ       1.9     1.2     -.2
17  3A-AZ     -17.0   -11.2     -.1
18  3B-AZ     -30.4   -19.6      .2
19  3C-AZ     -68.5   -44.1      .6

20  3D-AZ        .1     0.0     0.0
21  3E-AZ       1.0      .7      .4
22  3F-AZ       1.4     1.1      .4
24  4A-AZ      -9.6    -6.3     -.1
25  4B-AZ        .4      .3     0.0

28  4D-AZ       5.2     3.6      .7
29  4E-AZ       2.5     1.7      .2
30  4F-AZ       2.6     1.9      .5
32  4G-AZ       3.0     2.2      .2
33  5A-AZ      -1.2    -1.0      .6

34  5B-AZ        .5      .9     1.1
35  5C-AZ      -2.2     0.0     1.6
36  5D-AZ       1.4     1.0     0.0
37  5E-AZ       2.4     2.3     2.0
39  5F-AZ       3.3     3.2     2.5

42  5G-AZ        .4     -.3    -1.1
46  R03-A       -.1     -.1     -.2
51  R07-A       -.1     -.1     -.1
56  R10-A       -.1     -.1     -.1
61  R14-A        .2      .1     -.3

SEP-04-89  - 3RD CAL OF DAY -
NOTHING TO NOTE 10:40
```

```
FILE: A-4U-1

READING   TONS      LBS     KG
   #1     -.11     -223   -101
   #2     3.47     6938   3147
   #3     5.57    11141   5053

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AZ      -1.8    -1.6    -1.4
 1  1B-AZ      -3.3    -4.7    -5.3
 2  1C-AZ      -5.5    -6.6    -7.1
 3  1D-AZ       6.9     8.5     9.5
 5  1F-AZ        .9     1.9     2.5

 7  1G-AZ       4.9     5.7     6.3
10  2B-AZ      -3.1    -5.9    -7.5
11  2C-AZ       1.2    -1.6    -3.3
12  2D-AZ      -3.8    -1.2      .3
14  2E-AZ      12.1    14.4    15.8

15  2F-AZ      14.3    15.8    16.7
16  2G-AZ      -1.5     -.2      .8
17  3A-AZ      -7.9    -9.3   -10.1
18  3B-AZ      10.6    12.6    13.8
19  3C-AZ        .2     3.8     5.7

20  3D-AZ      -6.8    -4.6    -3.4
21  3E-AZ      -1.8     -.1      .8
22  3F-AZ      14.7    17.1    16.5
24  4A-AZ       4.9    -8.7   -16.2
25  4B-AZ      -5.7   -35.4   -51.6

28  4D-AZ      11.9    10.9    10.2
29  4E-AZ      17.3    17.8    17.9
30  4F-AZ      11.6    12.4    12.7
32  4G-AZ       9.2     9.2     9.2
33  5A-AZ       7.3     2.6     -.5

34  5B-AZ      12.2    12.3    12.3
35  5C-AZ      15.1    15.1    15.4
36  5D-AZ      10.3    13.0    14.4
37  5E-AZ      10.8    13.1    13.3
39  5F-AZ       9.0    11.6    12.5

42  5G-AZ       9.3     9.4     9.5
46  R03-A      -2.9    -2.3    -2.1
51  R07-A      -9.8   -10.3   -11.6
56  R10-A       5.0    13.1    19.0
61  R14-A       5.1     5.1     5.0

SEP-04-89  2ND CAL OF DAY - CHAN
 35 BACK TO 10VEX
```

```
FILE: A-4U-1

READING   TONS      LBS     KG
   #4     7.26    14523   6588
   #5     4.92     9834   4461
   #6     3.45     6907   3133

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AZ      -1.1    -1.1    -1.0
 1  1B-AZ      -5.8    -4.7    -4.1
 2  1C-AZ      -7.6    -6.6    -6.1
 3  1D-AZ      10.1     9.3     8.9
 5  1F-AZ       2.9     2.4     1.9

 7  1G-AZ       6.8     6.3     6.1
10  2B-AZ      -8.7    -6.6    -5.4
11  2C-AZ      -4.6    -2.6    -1.4
12  2D-AZ       1.7      .3     -.5
14  2E-AZ      17.0    15.9    15.2

15  2F-AZ      17.3    16.4    15.9
16  2G-AZ       1.3      .7      .2
17  3A-AZ     -10.7    -9.8    -9.1
18  3B-AZ      14.8    13.6    12.9
19  3C-AZ       7.3     5.3     4.1

20  3D-AZ      -2.4    -3.8    -4.6
21  3E-AZ       1.5      .7      .2
22  3F-AZ      19.7    18.3    17.4
24  4A-AZ     -22.4   -13.8    -8.6
25  4B-AZ     -64.8   -46.5   -35.2

28  4D-AZ       9.7    10.6    11.2
29  4E-AZ      18.0    18.0    16.0
30  4F-AZ      13.0    12.8    12.6
32  4G-AZ       9.2     9.2     9.2
33  5A-AZ      -2.4     1.4     2.9

34  5B-AZ      12.3    12.4    12.4
35  5C-AZ      15.4    15.1    15.2
36  5D-AZ      15.0    14.0    13.2
37  5E-AZ      13.6    13.3    13.2
39  5F-AZ      12.9    12.6    12.4

42  5G-AZ       9.6     9.4     9.4
46  R03-A      -1.7    -2.1    -2.3
51  R07-A     -12.2   -11.0   -10.3
56  R10-A      21.9    16.4    12.8
61  R14-A       4.9     5.0     5.0

SEP-04-89  2ND CAL OF DAY - CHAN
 35 BACK TO 10VEX
```

```
FILE: A-5U-1

READING   TONS      LBS     KG
   #1     3.49     6978   3165
   #2     5.60    11191   5076
   #3     -.22     -435   -198

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AZ        .1      .1    -2.0
 1  1B-AZ      -1.0    -1.5     0.0
 2  1C-AZ       -.7    -1.3      .2
 3  1D-AZ        .8     1.3     -.1
 5  1F-AZ        .6     1.0      .1

 7  1G-AZ        .6     1.0     1.0
10  2B-AZ      -2.5    -4.1     -.2
11  2C-AZ      -1.8    -2.8     0.0
12  2D-AZ       1.6     2.9      .4
14  2E-AZ       1.5     2.7     1.4

15  2F-AZ        .9     1.3     -.1
16  2G-AZ        .6      .9     -.4
17  3A-AZ       -.4     -.7      .2
18  3B-AZ      -1.2    -2.0     -.2
19  3C-AZ       3.2     5.2      .4

20  3D-AZ       2.3     3.4    -1.5
21  3E-AZ       1.4     2.2      .1
22  3F-AZ       1.9     3.0      .1
24  4A-AZ      -1.1    -1.9      .1
25  4B-AZ       0.0      .1     -.1

28  4D-AZ       2.6     4.1     -.2
29  4E-AZ       1.8     3.0      .5
30  4F-AZ       1.4     2.3      .1
32  4G-AZ        .5      .8      .1
33  5A-AZ     -15.0   -23.3      .3

34  5B-AZ      -2.0      .1    -1.9
35  5C-AZ      49.2    67.7   -56.6
36  5D-AZ      -2.9    -3.3      .1
37  5E-AZ        .4      .9      .4
39  5F-AZ       0.0     0.0      .1

42  5G-AZ       -.2    -1.8     0.0
46  R03-A        .1      .2     -.1
51  R07-A       -.1     -.2     -.1
56  R10-A        .1      .1      .1
61  R14-A        .4      .5      .1

SEP-03-89
```

```
FILE: A-5U-1

READING   TONS      LBS     KG
   #4     -.11     -213    -96
   #5     -.11     -213    -96
   #6     -.11     -213    -96

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AZ     -20.4   -20.4   -20.4
 1  1B-AZ      -7.6    -7.6    -7.6
 2  1C-AZ       -.4     -.4     -.4
 3  1D-AZ      12.0    12.0    12.0
 5  1F-AZ      -5.5    -5.5    -5.5

 7  1G-AZ     -37.3   -37.3   -37.3
10  2B-AZ      24.9    24.9    24.9
11  2C-AZ      13.1    13.1    13.1
12  2D-AZ     -27.1   -27.1   -27.1
14  2E-AZ     -50.1   -50.1   -50.1

15  2F-AZ       6.3     6.3     6.3
16  2G-AZ      -1.0    -1.0    -1.0
17  3A-AZ     -14.0   -14.0   -14.0
18  3B-AZ      -7.4    -7.4    -7.4
19  3C-AZ     -27.6   -27.6   -27.6

20  3D-AZ        .9      .9      .9
21  3E-AZ      -3.0    -3.0    -3.0
22  3F-AZ     -10.1   -10.1   -10.1
24  4A-AZ        .6      .6      .6
25  4B-AZ      -5.6    -5.6    -5.6

28  4D-AZ     -12.4   -12.4   -12.4
29  4E-AZ     -25.1   -25.1   -25.1
30  4F-AZ      -7.4    -7.4    -7.4
32  4G-AZ     -12.5   -12.5   -12.5
33  5A-AZ       2.4     2.4     2.4

34  5B-AZ       6.2     6.2     6.2
35  5C-AZ      67.5    67.5    67.5
36  5D-AZ     -12.3   -12.3   -12.3
37  5E-AZ     -14.2   -14.2   -14.2
39  5F-AZ      -4.8    -4.8    -4.8

42  5G-AZ     -16.7   -16.7   -16.7
46  R03-A      -5.2    -5.2    -5.2
51  R07-A       6.0     6.0     6.0
56  R10-A       1.3     1.3     1.3
61  R14-A        .8      .8      .8

SEP-03-89
```

```
FILE: A-5U-2

READING    TONS       LBS      KG
   #1      3.87      7748    3514
   #2      5.54     11080    5026
   #3      7.14     14280    6477

CH  GAUGE     #1 uS    #2 uS    #3 uS

 0  1A-AZ        .2       .2       .3
 1  1B-AZ       -.9     -1.3     -1.5
 2  1C-AZ       -.8     -1.1     -1.4
 3  1D-AZ       1.1      1.6      2.1
 5  1F-AZ        .7      1.0      1.3

 7  1G-AZ        .7      1.0      1.4
10  2B-AZ      -2.5     -3.6     -4.5
11  2C-AZ      -1.8     -2.6     -3.1
12  2D-AZ       2.0      2.9      3.8
14  2E-AZ       1.8      2.6      3.5

15  2F-AZ       1.0      1.5      1.9
16  2G-AZ        .9      1.3      1.6
17  3A-AZ       -.4      -.7      -.8
18  3B-AZ      -1.2     -1.7     -2.1
19  3C-AZ       3.6      5.3      6.9

20  3D-AZ       2.3      3.4      4.3
21  3E-AZ       1.5      2.3      3.0
22  3F-AZ       2.3      3.2      4.3
24  4A-AZ      -1.2     -1.6     -2.1
25  4B-AZ        .6       .9      1.3

28  4D-AZ       2.9      4.2      5.5
29  4E-AZ       2.1      3.0      3.9
30  4F-AZ       1.7      2.5      3.3
32  4G-AZ        .6      2.3      2.4
33  5A-AZ     -15.7    -23.3    -30.5

34  5B-AZ       -.3      -.2      1.1
36  5D-AZ      -1.6     -1.9     -2.1
37  5E-AZ       -.2      -.2      -.4
39  5F-AZ       -.1      -.4      -.5
42  5G-AZ       -.5     -1.3     -1.5

46  R03-A        .5       .7       .8
51  R07-A       -.2      -.4      -.4
56  R10-A        .1       .2       .2
61  R14-A        .1       .2       .4

SEP-04-89
```

```
FILE: A-5U-2

READING    TONS       LBS      KG
   #4      5.52     11049    5012
   #5      3.58      7160    3248
   #6       .01        20       9

CH  GAUGE     #4 uS    #5 uS    #6 uS

 0  1A-AZ       -.1      -.6     -5.6
 1  1B-AZ       -.9      -.1      1.1
 2  1C-AZ       -.9      -.2       .7
 3  1D-AZ       2.1      1.7       .8
 5  1F-AZ        .9       .6      0.0

 7  1G-AZ       1.9      1.9      1.7
10  2B-AZ      -2.9     -1.3      1.5
11  2C-AZ      -2.4     -1.4       .4
12  2D-AZ       2.4      1.4      -.4
14  2E-AZ       3.3      2.8      1.8

15  2F-AZ       1.6      1.2       .4
16  2G-AZ       1.6      1.4      1.2
17  3A-AZ       -.6      -.4      0.0
18  3B-AZ      -1.6      -.7       .5
19  3C-AZ       5.1      3.3       .2

20  3D-AZ       3.4      2.3       .3
21  3E-AZ       2.5      1.8       .5
22  3F-AZ       3.2      2.5       .7
24  4A-AZ      -1.5      -.9       .2
25  4B-AZ       1.0       .8       .3

28  4D-AZ       4.6      3.3       .8
29  4E-AZ       3.1      2.2       .5
30  4F-AZ       2.9      2.3      1.0
32  4G-AZ       2.5      2.4      2.0
33  5A-AZ     -23.2    -14.9       .7

34  5B-AZ        .7      2.8       .7
36  5D-AZ      -1.9     -1.0      1.6
37  5E-AZ       2.1      2.4      2.3
39  5F-AZ       0.0       .1       .5
42  5G-AZ      -1.4      -.5       .2

46  R03-A        .8       .7       .4
51  R07-A       -.4      -.2      -.1
56  R10-A        .2       .1       .1
61  R14-A        .4       .4       .1

SEP-04-89
```

```
FILE: A-2S-1

READING    TONS       LBS       KG
   #4      5.20     10391     4713
   #5      3.68      7363     3340
   #6      -.15      -304     -138

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AZ      -4.4    -4.3    -5.0
 1  1B-AZ      -3.8    -2.6      .4
 2  1C-AZ      -3.4    -2.3      .1
 3  1D-AZ       3.5     2.5     -.1
 5  1F-AZ       3.3     2.2     -.1

 7  1G-AZ       4.2     3.1      .5
10  2B-AZ     -11.4    -7.8      .4
11  2C-AZ      -8.4    -5.9      .1
12  2D-AZ      10.9     7.8      .4
14  2E-AZ       5.5     4.1      .8

15  2F-AZ       2.9     1.9     -.1
16  2G-AZ       2.1     1.4     -.1
17  3A-AZ      -1.0     -.9     -.1
18  3B-AZ      -7.8    -6.1    -2.7
19  3C-AZ       5.7     4.0      .3

20  3D-AZ       4.8     3.8     1.5
21  3E-AZ       6.5     4.8      .1
22  3F-AZ       5.7     4.1      .1
24  4A-AZ       1.6     1.0     -.2
25  4B-AZ      -2.1    -1.5     0.0

28  4D-AZ     -24.8   -17.5      .3
29  4E-AZ      20.5    14.4     -.1
30  4F-AZ      20.2    14.4      .4
32  4G-AZ      15.6    11.7      .2
33  5A-AZ      -1.4    -1.1     0.0

34  5B-AZ       -.1      .1      .1
35  5C-AZ      -3.6    -2.9    -1.8
36  5D-AZ      -1.4    -1.1      .3
37  5E-AZ       -.6     -.2      .2
39  5F-AZ       1.0      .6     0.0

42  5G-AZ       2.6     2.3      .3
46  R03-A       1.9      .9     -.1
51  R07-A       1.5      .5     -.1
56  R10-A       -.4     -.2     0.0
61  R14-A       4.5     3.3     -.2

SEP-04-89  13:54  PULLED FROM
UPPER PADEYE #1
```

```
FILE: A-2S-1

READING    TONS       LBS       KG
   #1      3.69      7383     3349
   #2      5.34     10675     4842
   #3      7.12     14250     6464

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AZ       -.6    -2.8    -4.0
 1  1B-AZ      -2.9    -4.1    -5.3
 2  1C-AZ      -2.7    -3.5    -4.6
 3  1D-AZ       2.5     3.6     4.8
 5  1F-AZ       2.3     3.4     4.4

 7  1G-AZ       2.8     4.2     5.5
10  2B-AZ      -8.0   -11.8   -15.5
11  2C-AZ      -5.9    -8.6   -11.3
12  2D-AZ       7.5    11.0    14.5
14  2E-AZ       3.6     5.4     7.2

15  2F-AZ       1.9     2.9     3.8
16  2G-AZ       1.5     2.2     2.9
17  3A-AZ       -.7    -1.0    -1.4
18  3B-AZ      -4.2    -6.3    -9.1
19  3C-AZ       3.9     5.8     7.6

20  3D-AZ       3.2     4.6     6.2
21  3E-AZ       4.5     6.5     8.6
22  3F-AZ       4.0     5.8     7.5
24  4A-AZ       1.2     1.7     2.2
25  4B-AZ      -1.6    -2.3    -3.0

28  4D-AZ     -17.3   -25.0   -33.0
29  4E-AZ      14.3    20.8    27.3
30  4F-AZ      13.9    20.4    26.9
32  4G-AZ      11.6    15.8    21.5
33  5A-AZ      -1.2    -1.4    -1.5

34  5B-AZ       -.2     -.3     -.3
35  5C-AZ      -2.5    -3.6    -4.0
36  5D-AZ      -1.2    -1.4    -1.6
37  5E-AZ       -.6     -.8    -2.1
39  5F-AZ        .4      .9     1.3

42  5G-AZ       2.2     2.6     3.6
46  R03-A        .9     1.9     3.9
51  R07-A        .5     1.5     1.9
56  R10-A       -.1     -.4     -.4
61  R14-A       3.5     5.3     7.0

SEP-04-89  13:54  PULLED FROM
UPPER PADEYE #1
```

```
FILE: A-4S-1

READING   TONS      LBS      KG
   #4     5.08    10168    4612
   #5     3.37     6735    3055
   #6     -.09     -172     -78

CH  GAUGE    #4 uS  #5 uS  #6 uS

 0  1A-AZ     -4.6   -4.8   -4.6
 1  1B-AZ     -2.3   -1.6     .4
 2  1C-AZ     -2.0   -1.2     .3
 3  1D-AZ      2.5    1.7     .2
 5  1F-AZ      2.1    1.4     .1

 7  1G-AZ      2.0    1.6     .5
10  2B-AZ     -7.2   -4.5     .7
11  2C-AZ     -5.2   -3.3     .3
12  2D-AZ      6.4    4.4     .8
14  2E-AZ      4.7    3.4     .9

15  2F-AZ      1.9    1.3    0.0
16  2G-AZ      1.2     .7    -.1
17  3A-AZ      -.4    -.4    -.2
18  3B-AZ     -4.8   -3.4    -.5
19  3C-AZ      8.8    5.8     .2

20  3D-AZ      5.1    3.5     .5
21  3E-AZ      8.9    6.0     .2
22  3F-AZ      8.5    5.6    0.0
24  4A-AZ      4.0    2.6    -.2
25  4B-AZ     -2.7   -1.8     .2

28  4D-AZ    -41.9  -27.5     .8
29  4E-AZ     32.9   21.6    -.1
30  4F-AZ     30.3   19.9     .2
32  4G-AZ     22.0   14.4     .6
33  5A-AZ     -1.8    -.9    1.5

34  5B-AZ      -.1     .1    1.1
35  5C-AZ     -6.6   -5.5   -3.6
36  5D-AZ     -1.6    -.6    1.6
37  5E-AZ     -1.5   -1.0     .5
39  5F-AZ      1.5    1.2     .4

42  5G-AZ      5.3    3.2     .6
46  R03-A      1.8     .8    -.1
51  R07-A      1.3     .4    -.1
56  R10-A      -.5    -.2    0.0
61  R14-A      6.0    3.5    -.4

SEP-04-89    14:15
```

```
FILE: A-4S-1

READING   TONS      LBS      KG
   #1     3.64     7282    3303
   #2     5.42    10837    4916
   #3     7.21    14422    6542

CH  GAUGE    #1 uS  #2 uS  #3 uS

 0  1A-AZ      -.7   -2.9   -4.3
 1  1B-AZ     -1.9   -2.6   -3.5
 2  1C-AZ     -1.5   -2.2   -2.9
 3  1D-AZ      1.7    2.6    3.4
 5  1F-AZ      1.5    2.2    2.9

 7  1G-AZ      1.3    2.0    2.8
10  2B-AZ     -5.2   -7.9  -10.3
11  2C-AZ     -3.8   -5.7   -7.5
12  2D-AZ      4.3    6.5    8.6
14  2E-AZ      3.1    4.6    6.2

15  2F-AZ      1.4    2.0    2.7
16  2G-AZ       .9    1.3    1.7
17  3A-AZ      -.3    -.3    -.6
18  3B-AZ     -2.9   -4.5   -6.0
19  3C-AZ      6.1    9.2   12.2

20  3D-AZ      3.4    5.3    6.9
21  3E-AZ      6.3    9.4   12.3
22  3F-AZ      6.0    9.0   11.8
24  4A-AZ      2.9    4.3    5.6
25  4B-AZ     -2.0   -2.9   -3.8

28  4D-AZ    -30.0  -44.6  -58.5
29  4E-AZ     23.3   34.9   45.7
30  4F-AZ     21.4   32.0   42.1
32  4G-AZ     16.2   24.2   31.7
33  5A-AZ     -1.5   -1.8   -2.1

34  5B-AZ      -.2    -.2    -.2
35  5C-AZ     -3.6   -6.0   -7.4
36  5D-AZ      -.9   -1.6   -1.9
37  5E-AZ     -1.1   -1.8   -3.9
39  5F-AZ      1.2    3.0    3.3

42  5G-AZ      3.0    5.4    5.9
46  R03-A       .8    1.8    3.1
51  R07-A       .5    1.5    1.9
56  R10-A      -.2    -.6    -.6
61  R14-A      4.5    7.0    7.6

SEP-04-89    14:15
```

```
FILE: B-1L-1

READING   TONS      LBS      KG
   #1     1.88     3769    1710
   #2     3.56     7126    3232
   #3     5.06    10127    4594

CH  GAUGE    #1 uS   #2 uS   #3 uS

 0  1A-AY     -3.5    -6.5    -9.3
 1  1B-AY     -4.1    -7.6   -10.7
 2  1C-AY     -3.2    -5.8    -8.2
 3  1D-AY     22.6    42.6    60.3
 5  1F-AY    -13.6   -25.6   -36.7

 7  1G-AY    -16.4   -30.7   -43.6
10  2B-AY      2.2     4.2     5.9
11  2C-AY      1.5     2.9     4.3
12  2D-AY       .5     1.1     1.5
14  2E-AY     -1.4    -2.7    -3.9

15  2F-AY     -2.7    -5.2    -7.4
16  2G-AY     -3.2    -6.0    -8.6
17  3A-AY       .5      .9     1.3
19  3C-AY      -.9    -1.7    -2.4
21  3E-AY      -.4     -.7     -.7

22  3F-AY      -.7    -1.4    -2.0
24  4A-AY       .4      .7      .7
25  4B-AY       .9     1.5     2.3
28  4D-AY      -.4     -.7    -1.1
29  4E-AY      -.2     -.5     -.6

30  4F-AY      -.5     -.7    -1.2
32  4G-AY      -.8    -1.0    -1.2
33  5A-AY       .2      .3      .4
34  5B-AY       .2      .2      .4
36  5D-AY      -.1     -.2     -.2

37  5E-AY      -.1     -.7    -2.2
39  5F-AY      -.2     -.2     -.2
42  5G-AY      -.4     -.7     -.8
43  R01-B       .8     1.8     2.2
46  R03-B      2.0     3.0     3.3

47  R04-B     -1.9    -2.4    -3.3
51  R07-B       .4     2.0     2.2
52  R08-B      -.4     -.5     -.9
58  R11-B      1.5     3.9     5.9
60  R13-B     -3.2    -4.9    -5.8

61  R14-B       .3     2.0     2.1

SEP-05-89   17:58
```

```
FILE: B-1L-1

READING   TONS      LBS      KG
   #4     3.42     6844    3104
   #5     1.90     3798    1723
   #6     0.00        0       0

CH  GAUGE    #4 uS   #5 uS   #6 uS

 0  1A-AY     -6.3    -3.6     0.0
 1  1B-AY     -7.0    -3.8      .4
 2  1C-AY     -5.4    -2.8      .6
 3  1D-AY     41.6    23.9      .5
 5  1F-AY    -24.3   -13.3      .1

 7  1G-AY    -29.6   -16.5      .5
10  2B-AY      4.2     2.7      .8
11  2C-AY      3.0     1.8      .4
12  2D-AY      1.1      .8      .3
14  2E-AY     -2.6    -1.3      .5

15  2F-AY     -5.0    -2.9     -.1
16  2G-AY     -6.0    -3.5     -.2
17  3A-AY       .9      .6     -.1
19  3C-AY     -1.6     -.8      .3
21  3E-AY      -.1      .5     1.0

22  3F-AY     -1.3     -.7      .2
24  4A-AY       .4      .1     -.2
25  4B-AY      1.5      .9     -.1
28  4D-AY      -.6     -.1      .5
29  4E-AY      -.4     -.1      .2

30  4F-AY      -.9     -.5      .2
32  4G-AY     -1.0     -.4      .7
33  5A-AY       .2      .1     -.1
34  5B-AY       .2      .2      .2
36  5D-AY      -.2     -.1      .1

37  5E-AY     -5.3    -5.5    -5.4
39  5F-AY      -.2     -.2     0.0
42  5G-AY      -.5     -.4      .3
43  R01-B      1.9     1.2      .3
46  R03-B      3.1     2.5      .7

47  R04-B     -2.3    -2.0     -.1
51  R07-B      2.2     2.1     -.1
52  R08-B      -.5     -.4      .1
58  R11-B      3.9     1.7     0.0
60  R13-B     -4.9    -3.4    -1.1

61  R14-B      2.0      .3      .1

SEP-05-89   17:58
```

```
FILE: B-2L-1

READING    TONS        LBS       KG
   #1      2.07       4142     1879
   #2      3.52       7030     3189
   #3      5.01      10020     4545

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AY      -1.0    -1.6    -2.3
 1  1B-AY       -.5    -1.0    -1.3
 2  1C-AY       3.1     5.1     7.2
 3  1D-AY       3.1     5.3     7.5
 5  1F-AY       5.1     8.5    12.0

 7  1G-AY        .1      .2      .2
10  2B-AY      -1.6    -2.7    -3.7
11  2C-AY      -5.1    -8.3   -11.7
12  2D-AY      22.7    37.7    53.2
14  2E-AY      46.4    76.9   108.7

15  2F-AY     -12.3   -21.1   -30.8
16  2G-AY     -18.2   -30.4   -43.3
17  3A-AY       -.1      .1      .1
19  3C-AY      -1.7    -2.7    -3.9
21  3E-AY      -2.9    -4.9    -6.9

22  3F-AY      -1.8    -2.9    -4.2
24  4A-AY        .5     1.0     1.3
25  4B-AY       1.5     2.4     3.5
28  4D-AY      -1.2    -1.9    -2.8
29  4E-AY       -.5     -.8    -1.1

30  4F-AY       -.4     -.5     -.7
32  4G-AY       -.5     -.1     -.1
33  5A-AY        .5     1.4     1.9
34  5B-AY        .1      .6      .8
36  5D-AY       -.2     -.5    -1.0

37  5E-AY      -1.2    -1.4    -1.7
39  5F-AY       -.8     -.9    -1.2
42  5G-AY       -.2    -1.7    -1.8
43  R01-B       3.2     3.9     5.3
46  R03-B       2.1     3.5     5.6

47  R04-B       -.7    -1.4    -1.7
51  R07-B        .3      .5     1.1
52  R08-B       -.1     -.1     -.4
58  R11-B       5.3     9.5    15.2
60  R13-B       -.3     -.9    -2.4

61  R14-B        .5      .6     1.2

SEP-05-89   17:18   PULLED FROM
UPPER PADEYE #3
```

```
FILE: B-2L-1

READING    TONS        LBS       KG
   #4      3.53       7053     3199
   #5      2.07       4148     1882
   #6      -.07       -141      -64

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AY      -1.6     -.8      .4
 1  1B-AY       -.8     -.3      .5
 2  1C-AY       5.2     3.3      .4
 3  1D-AY       5.4     3.4      .4
 5  1F-AY       8.6     5.2      .1

 7  1G-AY        .4      .4      .5
10  2B-AY      -2.4    -1.1      .9
11  2C-AY      -8.3    -4.9      .4
12  2D-AY      38.1    23.0      .2
14  2E-AY      77.9    47.0      .4

15  2F-AY     -21.3   -12.0      .2
16  2G-AY     -30.7   -18.2      .3
17  3A-AY        .1     0.0      .1
19  3C-AY      -2.7    -1.4      .4
21  3E-AY      -4.8    -2.7      .3

22  3F-AY      -2.8    -1.5      .3
24  4A-AY        .9      .5     -.1
25  4B-AY       2.6     1.6      .2
28  4D-AY      -1.9     -.8      .5
29  4E-AY       -.8     -.4      .3

30  4F-AY       -.4     -.1      .4
32  4G-AY        .1      .2      .3
33  5A-AY       1.4     1.1      .4
34  5B-AY        .6      .2      .2
36  5D-AY       -.3     0.0      .4

37  5E-AY      -1.2     -.1      .4
39  5F-AY       -.9     -.8      .9
42  5G-AY      -1.4      .1      .2
43  R01-B       3.9     3.2     0.0
46  R03-B       3.3     2.0     -.4

47  R04-B      -1.4     -.7     0.0
51  R07-B        .4      .1     -.1
52  R08-B       -.2     -.1     -.1
58  R11-B       9.5     5.1     -.1
60  R13-B      -1.3     -.6     -.2

61  R14-B        .7      .5     -.1

SEP-05-89   17:18   PULLED FROM
UPPER PADEYE #3
```

```
FILE: B-3L-1

READING     TONS        LBS       KG
   #1       1.95       3905     1771
   #2       3.46       6912     3135
   #3       5.04      10088     4576

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   1A-AY        .4      .7      .9
 1   1B-AY       1.3     2.3     3.3
 2   1C-AY       1.7     3.1     4.6
 3   1D-AY       -.7    -1.1    -1.7
 5   1F-AY       -.7    -1.3    -1.9

 7   1G-AY       -.2     -.3     -.4
10   2B-AY       1.8     3.3     4.8
11   2C-AY       2.6     4.7     6.8
12   2D-AY       2.3     4.2     6.1
14   2E-AY       4.2     7.4    10.7

15   2F-AY       2.4     4.4     6.4
16   2G-AY       0.0     -.1     -.2
17   3A-AY      -4.1    -7.3   -10.6
19   3C-AY      -1.9    -3.4    -4.8
21   3E-AY     -14.3   -26.7   -40.1

22   3F-AY      36.4    65.9    95.0
24   4A-AY       0.0     0.0     0.0
25   4B-AY       1.0     1.9     2.7
28   4D-AY       -.5    -1.1    -1.6
29   4E-AY       -.7    -1.2    -1.7

30   4F-AY      -2.5    -4.6    -6.4
32   4G-AY      -1.8    -4.9    -7.5
33   5A-AY        .7     1.3     2.7
34   5B-AY        .1      .2      .4
36   5D-AY       -.5     -.8    -2.1

37   5E-AY      -1.3    -1.6    -1.7
39   5F-AY       -.3     -.3     -.3
42   5G-AY       -.3     -.3     -.3
43   R01-B       9.0    16.9    25.8
46   R03-B     -12.9   -24.1   -35.4

47   R04-B      31.2    55.1    78.4
51   R07-B       2.5     3.7     6.0
52   R08-B      -1.8    -4.9    -7.3
58   R11-B      -1.1    -3.3    -3.9
60   R13-B      -1.1    -3.6    -4.9

61   R14-B       1.0     2.9     4.2

SEP-05-89    17:06
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```
FILE: B-3L-1

READING     TONS        LBS       KG
   #4       3.60       7194     3263
   #5       1.99       3973     1802
   #6        .07        141       64

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   1A-AY        .7      .6      .6
 1   1B-AY       2.5     1.6      .5
 2   1C-AY       3.3     2.0      .4
 3   1D-AY      -1.1     -.5      .3
 5   1F-AY      -1.3     -.6      .2

 7   1G-AY       -.1      .2      .5
10   2B-AY       3.5     2.1      .4
11   2C-AY       4.8     2.7      .1
12   2D-AY       4.5     2.9      .6
14   2E-AY       8.0     4.9     1.1

15   2F-AY       4.6     2.7      .2
16   2G-AY       0.0      .1      .2
17   3A-AY      -7.5    -4.3     0.0
19   3C-AY      -3.2    -1.6      .9
21   3E-AY     -27.7   -15.0      .2

22   3F-AY      67.7    38.4      .5
24   4A-AY        .1     0.0      .1
25   4B-AY       2.0     1.2      .1
28   4D-AY      -1.0     -.3      .5
29   4E-AY      -1.1     -.4      .5

30   4F-AY      -4.5    -2.3      .3
32   4G-AY      -4.7    -1.8      .1
33   5A-AY       1.6      .9      .1
34   5B-AY        .4      .2      .1
36   5D-AY       -.8     -.5      .7

37   5E-AY      -1.4     -.6     1.4
39   5F-AY       -.3     0.0      .2
42   5G-AY       -.2     -.2     1.4
43   R01-B      18.3    10.5      .1
46   R03-B     -25.9   -13.3     -.2

47   R04-B      55.7    32.1      .2
51   R07-B       3.9     2.5     -.1
52   R08-B      -5.0    -1.9     0.0
58   R11-B      -3.6    -2.2     -.1
60   R13-B      -3.8    -1.8     0.0

61   R14-B       2.9     1.0     0.0

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```
FILE: 6-4L-1

READING    TONS          LBS        KG
   #1      1.96          3928      1782
   #2      3.46          6929      3143
   #3      4.91          9828      4458

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1A-AY        .1       .2       .7
 1   1B-AY        .8      1.4      4.0
 2   1C-AY       1.1      2.0      2.9
 3   1D-AY       -.2      -.3      -.4
 5   1F-AY       -.2      -.3      -.4

 7   1G-AY       -.2      -.5      -.5
10   2B-AY       2.3      3.9      5.5
11   2C-AY       2.5      4.4      6.1
12   2D-AY       -.3      -.4      -.7
14   2E-AY      -1.0     -1.7     -2.4

15   2F-AY      -1.1     -1.9     -2.6
16   2G-AY       -.4      -.6     -1.1
17   3A-AY       -.2      -.3      -.5
19   3C-AY       -.9     -1.6     -2.1
21   3E-AY       2.8      4.9      6.9

22   3F-AY       3.6      6.3      8.8
24   4A-AY      -4.2     -7.4    -10.7
25   4B-AY      -4.7     -8.1    -11.4
28   4D-AY      16.3     28.2     39.7
29   4E-AY      35.5     61.3     86.1

30   4F-AY     -11.1    -20.5    -30.3
32   4G-AY     -18.8    -32.1    -44.3
33   5A-AY       0.0      0.0      0.0
34   5B-AY       1.2      1.3      1.3
36   5D-AY       1.0      1.1      1.2

37   5E-AY       -.7     -2.5     -3.6
39   5F-AY      -1.8     -4.5     -3.6
42   5G-AY      -4.4     -6.3     -9.3
43   R01-B      -1.2     -2.8     -3.6
46   R03-B      -3.8     -5.6     -8.2

47   R04-B       3.0      6.2      7.1
51   R07-B      11.3     19.3     27.9
52   R08-B     -14.8    -26.2    -36.1
58   R11-B        .2      1.0      1.2
60   R13-B      -2.8     -4.3     -6.2

61   R14-B     -18.0    -30.3    -42.8

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```
FILE: 6-4L-1

READING    TONS          LBS        KG
   #4      3.34          6674      3027
   #5      2.03          4052      1838
   #6       .01            11         5

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1A-AY        .4       .4       .5
 1   1B-AY       1.6      1.1       .5
 2   1C-AY       2.0      1.4       .5
 3   1D-AY       -.1       .1       .3
 5   1F-AY       -.2      -.1       .1

 7   1G-AY       -.2       .1       .5
10   2B-AY       3.9      2.5       .3
11   2C-AY       4.1      2.6      0.0
12   2D-AY       -.2       .1       .6
14   2E-AY      -1.5      -.7       .5

15   2F-AY      -1.8     -1.0       .1
16   2G-AY       -.7      -.5      0.0
17   3A-AY       -.4      -.2       .2
19   3C-AY      -1.3      -.5       .7
21   3E-AY       4.8      3.0       .1

22   3F-AY       6.1      3.9       .3
24   4A-AY      -7.0     -4.3       .1
25   4B-AY      -7.8     -4.8      0.0
28   4D-AY      27.4     16.9       .5
29   4E-AY      59.1     36.4       .4

30   4F-AY     -19.6    -11.1       .3
32   4G-AY     -30.5    -18.9       .6
33   5A-AY       0.0      0.0      0.0
34   5B-AY       1.3      1.2      1.2
36   5D-AY       1.1      1.0      1.0

37   5E-AY      -2.2      -.5       .2
39   5F-AY      -2.2      1.4      3.9
42   5G-AY      -6.2     -4.4       .5
43   R01-B      -2.7     -1.1      0.0
46   R03-B      -5.6     -3.9       .1

47   R04-B       6.0      3.6      -.5
51   R07-B      18.8     11.3      0.0
52   R08-B     -24.5    -15.7      -.1
58   R11-B        .9       .2      0.0
60   R13-B      -4.8     -2.8      -.2

61   R14-B     -29.4    -18.1       .1

SEP-05-89    15:55
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```
FILE: B-5L-1

READING     TONS          LBS         KG
    #1      2.00         4007       1817
    #2      3.49         6985       3168
    #3      5.07        10133       4596

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   1A-AY         .1       .1       .2
 1   1B-AY         .5      1.0      1.4
 2   1C-AY         .8      1.3      1.9
 3   1D-AY        -.2      -.2      -.4
 5   1F-AY        -.1      -.2      -.3

 7   1G-AY        -.1      -.1      -.2
10   2B-AY        1.5      2.6      3.8
11   2C-AY        1.6      2.8      4.0
12   2D-AY        0.0       .1       .1
14   2E-AY        -.2      -.4      -.5

15   2F-AY        -.4      -.7     -1.1
16   2G-AY        -.4      -.8     -1.2
17   3A-AY         .6      1.0      1.4
19   3C-AY        -.7     -1.1     -1.6
21   3E-AY        -.9     -1.6     -2.7

22   3F-AY       -1.2     -2.0     -2.9
24   4A-AY        -.2      -.3      -.4
25   4B-AY         .8      1.4      2.1
28   4D-AY        1.7      3.1      4.5
29   4E-AY        4.6      7.9     11.3

30   4F-AY        3.5      6.1      8.8
32   4G-AY        -.1      -.3      -.4
33   5A-AY       -5.4     -7.4    -11.0
34   5B-AY       -1.1     -1.3     -1.4
36   5D-AY       23.2     40.6     56.4

37   5E-AY       42.4     71.3    101.8
39   5F-AY      -15.5    -29.4    -44.8
42   5G-AY      -16.5    -28.9    -42.9
43   R01-B         .1       .1       .2
46   R03-B        1.7      2.0      2.2

47   R04-B        -.5      -.7     -1.5
51   R07-B       -1.4     -2.6     -3.4
52   R08-B        2.2      2.6      3.9
58   R11-B        0.0       .2       .4
60   R13-B       -1.2     -3.1     -3.0

61   R14-B       -5.1     -8.0    -11.6

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```
FILE: B-5L-1

READING     TONS          LBS         KG
    #4      3.67         7341       3330
    #5      1.99         3990       1810
    #6       .01           11          5

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   1A-AY         .2       .4       .5
 1   1B-AY        1.1       .8       .5
 2   1C-AY        1.6      1.0       .4
 3   1D-AY        -.1       .2       .4
 5   1F-AY        -.1      0.0       .2

 7   1G-AY         .2       .4       .9
10   2B-AY        2.9      1.7       .4
11   2C-AY        2.9      1.6      -.1
12   2D-AY         .4       .5       .8
14   2E-AY        -.2       .3       .8

15   2F-AY        -.8      -.4       .1
16   2G-AY        -.8      -.4       .1
17   3A-AY        1.1       .7       .2
19   3C-AY        -.8      -.2       .7
21   3E-AY       -1.5      -.6       .4

22   3F-AY       -1.9      -.9       .4
24   4A-AY        -.3      -.1       .1
25   4B-AY        1.5       .8       .1
28   4D-AY        3.6      2.2       .5
29   4E-AY        8.5      4.8       .5

30   4F-AY        6.6      3.8       .3
32   4G-AY        -.2      0.0       .8
33   5A-AY       -7.5     -5.3       .2
34   5B-AY        -.9       .1       .7
36   5D-AY       43.1     23.3       .2

37   5E-AY       74.2     42.4       .2
39   5F-AY      -32.7    -18.5     -1.8
42   5G-AY      -31.2    -16.3       .5
43   R01-B         .1       .1      0.0
46   R03-B        2.1      1.7      0.0

47   R04-B        -.8      -.5       .1
51   R07-B       -2.7     -1.1      0.0
52   R08-B        2.7      2.2      0.0
58   R11-B         .2       .1      0.0
60   R13-B       -2.8     -1.1       .2

61   R14-B       -8.3     -4.5       .9

SEP-05-89   15:42
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```
FILE: B-6L-1

READING    TONS        LBS       KG
    #1     1.97       3945     1789
    #2     3.69       7381     3348
    #3     5.15      10308     4676

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1A-AY        .1      .2      .2
 1   1B-AY        .4      .7      .9
 2   1C-AY        .4      .8     1.1
 3   1D-AY        .1      .1      .1
 5   1F-AY        .1      .2      .2

 7   1G-AY        .5      .6      .8
10   2B-AY       1.1     1.8     2.5
11   2C-AY        .9     1.5     2.0
12   2D-AY        .3      .4      .4
14   2E-AY        .3      .3      .2

15   2F-AY       -.1     -.2     -.4
16   2G-AY       -.1     -.2     -.2
17   3A-AY        .3      .4      .5
19   3C-AY       0.0     -.2     -.4
21   3E-AY        .1      .1     -.2

22   3F-AY        .1      .1     -.1
24   4A-AY        .4      .6      .9
25   4B-AY        .8     1.4     2.0
28   4D-AY        .2      .2      .4
29   4E-AY       -.1     -.3     -.6

30   4F-AY       -.2     -.7    -1.1
32   4G-AY       -.2     -.3     -.5
33   5A-AY        .1      .2      .4
34   5B-AY        .4      .4      .5
36   5D-AY        .4      .6      .8

37   5E-AY       1.2     1.8     1.9
39   5F-AY       1.6     1.6     1.8
42   5G-AY        .1     0.0      .1
43   R01-B        .6      .6     1.1
46   R03-B        .1      .4      .5

47   R04-B       0.0     -.1     -.2
51   R07-B        .5     1.4     1.8
52   R08-B       -.1     -.2     -.5
58   R11-B      -1.4    -1.4    -1.3
60   R13-B      -1.8    -2.0    -2.4

61   R14-B        .2      .4      .5

SEP-05-89   15:02
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```
FILE: B-6L-1

READING    TONS        LBS       KG
    #4     3.40       6810     3089
    #5     1.92       3832     1738
    #6     0.00          0        0

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1A-AY        .4      .5      .7
 1   1B-AY        .8      .7      .7
 2   1C-AY       1.0      .8      .7
 3   1D-AY        .2      .3      .6
 5   1F-AY        .2      .3      .4

 7   1G-AY       1.1     1.2     1.7
10   2B-AY       2.0     1.4      .9
11   2C-AY       1.4      .8      .1
12   2D-AY        .7      .8     1.1
14   2E-AY        .7      .8     1.2

15   2F-AY       -.1     0.0      .3
16   2G-AY       -.1      .1      .4
17   3A-AY        .6      .4      .6
19   3C-AY        .2      .6     1.4
21   3E-AY        .2      .5     1.0

22   3F-AY        .3      .5     1.0
24   4A-AY        .7      .5      .2
25   4B-AY       1.3      .7      .1
28   4D-AY        .5      .5      .8
29   4E-AY        .1      .4     1.1

30   4F-AY       -.4      .1      .8
32   4G-AY       -.1      .6     1.0
33   5A-AY        .4      .2      .2
34   5B-AY        .5      .5      .6
36   5D-AY        .8      .7      .7

37   5E-AY       1.9     1.9     1.9
39   5F-AY       1.8     1.7     1.8
42   5G-AY        .1      .3      .4
43   R01-B        .9      .6      .4
46   R03-B        .4      .5      .3

47   R04-B       0.0     0.0      .1
51   R07-B       1.5      .8      .5
52   R08-B       -.2     -.1      .8
58   R11-B      -1.4    -1.6    -1.8
60   R13-B      -2.0     -.1      .2

61   R14-B        .4      .3      .2

SEP-05-89   15:02
```

```
FILE: B-1U-1

READING     TONS          LBS        KG
    #1      2.16         4329      1964
    #2      3.17         6341      2876
    #3      5.07        10144      4601

CH   GAUGE      #1 uS     #2 uS    #3 uS

 0   1A-AY       26.4      38.6     61.2
 1   1B-AY      -25.9     -37.5    -58.1
 2   1C-AY       -8.4     -12.5    -19.9
 3   1D-AY         .1        .2       .2
 5   1F-AY         .5        .7      1.1

 7   1G-AY         .5        .7      1.2
10   2B-AY        1.9       2.9      4.6
11   2C-AY        -.9      -1.4     -2.3
12   2D-AY        -.5       -.8     -1.4
14   2E-AY        -.7      -1.0     -1.4

15   2F-AY        -.5       -.8     -1.2
16   2G-AY        -.4       -.7     -1.1
17   3A-AY         .1        .2       .4
19   3C-AY        -.7       -.5     -1.1
21   3E-AY        -.5       -.8     -1.4

22   3F-AY        -.6       -.8     -1.3
24   4A-AY        0.0       -.1       .1
25   4B-AY         .3        .4       .9
28   4D-AY        -.5       -.6     -1.0
29   4E-AY        -.2       -.3      -.4

30   4F-AY        -.5       -.8      -.9
32   4G-AY        -.7       -.5      -.9
33   5A-AY         .1        .4       .6
34   5B-AY        -.1       0.0       .1
36   5D-AY        -.2       -.2      -.2

37   5E-AY        0.0        .2       .4
39   5F-AY        -.7       -.8      -.9
42   5G-AY         .4        .2       .2
43   R01-B        1.1       1.6      1.9
46   R03-B         .9       1.2      1.7

47   R04-B        -.2      -1.4     -2.0
51   R07-B         .1        .1      1.6
52   R08-B       -1.6      -1.7     -2.1
58   R11-B        -.9       -.9       .5
60   R13-B       -2.1      -2.4     -3.8

61   R14-B         .1        .6      1.8

SEP-05-89     18:10     LAST B CAL
```

```
FILE: B-1U-1

READING     TONS          LBS        KG
    #4      3.36         6719      3048
    #5      1.93         3854      1748
    #6      -.01          -28       -13

CH   GAUGE      #4 uS     #5 uS    #6 uS

 0   1A-AY       41.5      24.3      -.3
 1   1B-AY      -39.5     -23.4       .1
 2   1C-AY      -13.3      -7.6       .1
 3   1D-AY         .2        .1       .1
 5   1F-AY         .7        .4      -.1

 7   1G-AY         .8        .5      0.0
10   2B-AY        3.2       2.1       .7
11   2C-AY       -1.3       -.6       .5
12   2D-AY        -.8       -.4       .3
14   2E-AY        -.8       -.1       .8

15   2F-AY        -.8       -.5      0.0
16   2G-AY        -.7       -.4      0.0
17   3A-AY         .2        .1      -.1
19   3C-AY        -.6       -.2       .4
21   3E-AY        -.8       -.2       .5

22   3F-AY        -.8       -.4       .2
24   4A-AY        -.1       -.3      -.4
25   4B-AY         .4        .1      -.3
28   4D-AY        -.5       -.2       .4
29   4E-AY        -.1        .2       .5

30   4F-AY        -.5       -.4       .2
32   4G-AY        -.3       -.2       .1
33   5A-AY         .6        .4       .1
34   5B-AY        0.0       -.1      -.1
36   5D-AY         .1        .4      1.7

37   5E-AY        1.3       2.1      2.2
39   5F-AY        -.8       -.4       .1
42   5G-AY         .8       1.0      1.3
43   R01-B        1.7       1.0      -.1
46   R03-B        1.3        .4      -.6

47   R04-B       -1.6       -.1       .1
51   R07-B         .1       0.0      -.4
52   R08-B       -1.8      -1.6     -1.5
58   R11-B        3.0       2.6     -1.2
60   R13-B       -2.8      -2.3      -.1

61   R14-B         .4        .1      -.1

SEP-05-89     18:10     LAST B CAL
```

```
FILE  B-2U-1

READING     TONS        LBS        KG
   #1       2.03       4063      1843
   #2       3.41       6827      3097
   #3       5.04      10076      4571

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   1A-AY        2.3     3.8     5.5
 1   1B-AY        4.7     7.9    11.5
 2   1C-AY       -2.4    -3.9    -5.5
 3   1D-AY        -.3     -.5     -.7
 5   1F-AY        -.4     -.7    -1.0

 7   1G-AY        -.3     -.5     -.9
10   2B-AY       24.4    40.5    59.5
11   2C-AY      -10.5   -17.9   -26.8
12   2D-AY         .1      .2      .4
14   2E-AY         .4      .5      .8

15   2F-AY        -.1     -.2     -.2
16   2G-AY        -.2     -.3     -.4
17   3A-AY         .6     1.2     2.0
19   3C-AY         .5      .8     1.3
21   3E-AY       -1.1    -1.8    -2.7

22   3F-AY       -1.0    -1.7    -2.5
24   4A-AY         .5      .9     1.4
25   4B-AY        1.0     1.5     2.1
28   4D-AY        -.7    -1.4    -2.0
29   4E-AY        -.5     -.8    -1.2

30   4F-AY        -.5    -1.0    -1.5
32   4G-AY        -.2     -.4    -2.1
33   5A-AY         .3      .4      .4
34   5B-AY         .2      .4      .4
36   5D-AY        -.3    -1.7    -1.9

37   5E-AY        0.0     -.1     -.2
39   5F-AY        -.3    -1.7    -2.0
42   5G-AY        -.2     -.2     -.2
43   R01-B        1.1     2.4     3.0
46   R03-B        1.1     2.3     2.7

47   R04-B        -.5    -1.5    -1.9
51   R07-B         .2      .5     2.1
52   R08-B        -.5    -1.2    -1.5
58   R11-B        -.2     -.5    -1.4
60   R13-B      -14.6   -23.5   -34.8

61   R14-B         .4      .7     2.4

SEP-05-89  17:43  PULLED FROM
UPPER PADEYE #3
```

```
FILE  B-2U-1

READING     TONS        LBS        KG
   #4       3.45       6900      3130
   #5       2.38       4758      2158
   #6       -.00         -6        -3

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   1A-AY        4.2     3.1      .5
 1   1B-AY        8.5     6.0      .5
 2   1C-AY       -4.0    -2.6      .5
 3   1D-AY        -.5     -.2      .4
 5   1F-AY        -.7     -.4      .1

 7   1G-AY        -.4     -.1      .7
10   2B-AY       43.9    30.2      .7
11   2C-AY      -19.6   -13.2      .3
12   2D-AY         .3      .4      .6
14   2E-AY         .7      .7      .6

15   2F-AY        -.1     -.1      .1
16   2G-AY        -.7     -.2      .2
17   3A-AY        1.5     1.0     0.0
19   3C-AY        1.2     1.1      .8
21   3E-AY       -2.0    -1.3      .1

22   3F-AY       -1.8    -1.1      .3
24   4A-AY        1.1      .7     -.1
25   4B-AY        1.6     1.1      .2
28   4D-AY       -1.3     -.8      .4
29   4E-AY        -.8     -.5      .2

30   4F-AY       -1.1     -.6      .4
32   4G-AY        -.4     -.2      .2
33   5A-AY         .4      .4      .3
34   5B-AY         .4      .4      .4
36   5D-AY       -1.7     -.1      .1

37   5E-AY        0.0     0.0     1.3
39   5F-AY       -1.7     -.2      .1
42   5G-AY        -.2     -.1      .1
43   R01-B        2.6     1.6      .1
46   R03-B        2.7     1.6     -.7

47   R04-B       -1.5     -.8      .1
51   R07-B         .5      .3     -.2
52   R08-B       -1.3     -.6     -.1
58   R11-B        -.5     -.3      .1
60   R13-B      -26.0   -18.4    -1.8

61   R14-B         .9      .5     0.0

SEP-05-89  17:43  PULLED FROM
UPPER PADEYE #3
```

```
FILE: B-3U-1

READING   TONS       LBS      KG
   #1     2.14      4289    1946
   #2     3.52      7036    3191
   #3     5.23     10455    4742

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AY        .1      .1     0.0
 1  1B-AY       1.2     2.0     2.9
 2  1C-AY       2.0     3.3     4.9
 3  1D-AY       -.4     -.5     -.8
 5  1F-AY       -.6    -1.0    -1.4

 7  1G-AY       -.5    -1.0    -1.4
10  2B-AY       4.6     7.7    11.4
11  2C-AY       2.6     4.3     6.3
12  2D-AY       -.1     -.2     -.4
14  2E-AY       3.4     3.5     3.3

15  2F-AY      -1.2    -1.9    -2.9
16  2G-AY      -1.2    -2.0    -3.0
17  3A-AY      12.1    20.3    29.8
19  3C-AY      35.7    59.9    89.2
21  3E-AY       -.7    -1.1    -1.6

22  3F-AY       -.8    -1.4    -2.0
24  4A-AY       1.8     3.0     4.3
25  4B-AY       0.0     0.0     0.0
28  4D-AY      -1.5    -2.5    -3.8
29  4E-AY       -.9    -1.5    -2.2

30  4F-AY       -.9    -1.7    -2.5
32  4G-AY       -.7     -.8    -1.4
33  5A-AY        .2      .4     1.1
34  5B-AY        .3      .3      .3
36  5D-AY       -.3     -.7    -2.2

37  5E-AY       -.2     -.4    -2.2
39  5F-AY      -1.0    -1.2    -1.7
42  5G-AY       -.4    -1.2    -1.4
43  R01-B        .1      .1      .1
46  R03-B      -1.0    -1.8    -2.1

47  R04-B      -1.0    -1.3    -1.4
51  R07-B        .9     1.5     3.3
52  R08-B       -.9    -1.0    -1.6
58  R11-B        .5     1.4     1.8
60  R13-B      -3.9    -7.2   -10.1

61  R14-B       1.2     1.6     3.4

SEP-05-89    16:55
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```
FILE: B-3U-1

READING   TONS       LBS      KG
   #4     3.50      7002    3176
   #5     2.09      4171    1892
   #6     -.01       -11      -5

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AY        .2      .2      .5
 1  1B-AY       2.0     1.4      .7
 2  1C-AY       3.5     2.2      .5
 3  1D-AY       -.4     -.1      .4
 5  1F-AY      -1.0     -.7     -.2

 7  1G-AY       -.7     -.1      .9
10  2B-AY       7.8     4.7      .3
11  2C-AY       4.2     2.5      .1
12  2D-AY       0.0      .2      .6
14  2E-AY       4.5     5.6     7.2

15  2F-AY      -1.9    -1.1      .2
16  2G-AY      -2.0    -1.1      .1
17  3A-AY      20.5    12.5      .1
19  3C-AY      62.8    40.1     6.0
21  3E-AY      -1.0     -.5      .4

22  3F-AY      -1.4     -.8      .5
24  4A-AY       2.9     1.7      .1
25  4B-AY        .1      .2      .1
28  4D-AY      -2.3    -1.2      .5
29  4E-AY      -1.4     -.7      .4

30  4F-AY      -1.5     -.7      .5
32  4G-AY       -.8     -.5      .7
33  5A-AY        .5      .4      .1
34  5B-AY        .3      .3      .3
36  5D-AY       -.5     -.1      .2

37  5E-AY       -.3     0.0     1.4
39  5F-AY      -1.1     -.8      .3
42  5G-AY      -1.1     -.4      .4
43  R01-B        .1      .1      .1
46  R03-B      -2.0    -1.8    -1.2

47  R04-B      -1.3    -1.0      .2
51  R07-B       1.5     1.0     0.0
52  R08-B      -1.0     -.8      .3
58  R11-B       1.3      .5     0.0
60  R13-B      -7.1    -3.8      .2

61  R14-B       1.6     1.1     0.0

SEP-05-89    16:55
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```
FILE: B-4U-1

READING    TONS        LBS      KG
   #1      2.01        4029     1828
   #2      3.38        6759     3066
   #3      4.87        9749     4422

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1A-AY        .2      .2      .4
 1   1B-AY        .9     1.7     2.2
 2   1C-AY       1.2     1.9     2.8
 3   1D-AY       -.3     -.6     -.9
 5   1F-AY       -.2     -.4     -.7

 7   1G-AY       -.4     -.8    -1.1
10   2B-AY       1.7     3.1     4.3
11   2C-AY       2.4     4.0     5.9
12   2D-AY        .3      .1     -.1
14   2E-AY       -.7    -1.1    -1.5

15   2F-AY       -.9    -1.5    -2.0
16   2G-AY       -.9    -1.6    -2.2
17   3A-AY       3.0     5.2     7.8
19   3C-AY       3.0     5.1     7.3
21   3E-AY      -1.3    -2.2    -2.8

22   3F-AY      -1.0    -1.9    -2.7
24   4A-AY      13.3    22.2    31.8
25   4B-AY      27.3    45.8    65.3
28   4D-AY       -.5     -.8    -1.0
29   4E-AY       0.0      .2      .4

30   4F-AY       -.1     -.2     -.1
32   4G-AY       -.1     -.1     -.1
33   5A-AY        .5     2.3     2.5
34   5B-AY        .3      .3      .4
36   5D-AY      -1.6    -1.8    -2.4

37   5E-AY      -1.2    -1.6    -2.7
39   5F-AY      -1.7    -3.2    -3.6
42   5G-AY       -.2     -.2     -.6
43   R01-B       1.0     2.2     2.8
46   R03-B        .2      .5      .7

47   R04-B       -.4     -.6    -1.0
51   R07-B       -.1     -.2     -.4
52   R08-B       -.7     -.7     -.7
58   R11-B       5.2     5.3     6.1
60   R13-B      -2.1    -3.4    -5.0

61   R14-B       -.1     -.4     -.8

SEP-05-89    16:26
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```
FILE: B-4U-1

READING    TONS        LBS      KG
   #4      3.38        6765     3068
   #5      1.94        3871     1756
   #6      -.04         -79      -36

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1A-AY        .5      .4      .7
 1   1B-AY       1.6     1.0      .1
 2   1C-AY       1.9     1.0      .1
 3   1D-AY       -.4     -.2      .2
 5   1F-AY       -.4     0.0      .5

 7   1G-AY       -.7     -.4      .2
10   2B-AY       3.2     1.9      .3
11   2C-AY       4.1     2.4      .1
12   2D-AY        .3      .5      .0
14   2E-AY      -1.0     -.5      .3

15   2F-AY      -1.4     -.8      .1
16   2G-AY      -1.6     -.9      .1
17   3A-AY       5.3     3.2      .4
19   3C-AY       5.2     3.3      .7
21   3E-AY      -1.7     -.5     1.1

22   3F-AY      -2.0    -1.1      .1
24   4A-AY      22.1    13.0     -.1
25   4B-AY      45.6    26.4     -.4
28   4D-AY       -.7     -.4      .2
29   4E-AY        .4      .4      .5

30   4F-AY       -.1      .1      .2
32   4G-AY       -.1     -.1     -.1
33   5A-AY       2.3      .6      .3
34   5B-AY        .3      .3      .2
36   5D-AY      -1.7    -1.0     1.3

37   5E-AY      -1.9    -1.7      .4
39   5F-AY      -3.2    -2.1     0.0
42   5G-AY       -.2     -.1      .4
43   R01-B       2.1     1.0     -.1
46   R03-B        .6      .1    -1.7

47   R04-B       -.6     -.4      .7
51   R07-B       -.4     -.1     0.0
52   R08-B       -.7     -.6     -.5
58   R11-B       2.2      .8    -1.5
60   R13-B      -3.4    -2.1      .1

61   R14-B       -.4     -.2     0.0

SEP-05-89    16:26
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```
FILE: B-5U-1

READING    TONS        LBS       KG
   #1      1.96       3922     1779
   #2      3.52       7030     3189
   #3      4.93       9856     4471

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1A-AY        .2      .2      .4
 1   1B-AY        .7     1.1     1.6
 2   1C-AY        .7     1.4     2.0
 3   1D-AY       -.1     -.4     -.6
 5   1F-AY       -.2     -.4     -.5

 7   1G-AY       -.2     -.2     -.4
10   2B-AY       1.5     2.7     3.8
11   2C-AY       1.7     2.9     4.0
12   2D-AY        .1     -.1     -.2
14   2E-AY       -.3     -.5     -.8

15   2F-AY       -.6    -1.0    -1.4
16   2G-AY       -.5    -1.0    -1.4
17   3A-AY        .6     1.0     1.5
19   3C-AY       -.5    -1.1    -1.4
21   3E-AY       -.8    -1.6    -2.2

22   3F-AY       -.7    -1.3    -1.7
24   4A-AY       2.9     5.1     7.1
25   4B-AY       3.6     6.5     9.2
28   4D-AY       -.9    -1.5    -2.0
29   4E-AY       -.7    -1.2    -1.7

30   4F-AY       -.8    -1.5    -2.1
32   4G-AY      -1.7    -2.1    -2.4
33   5A-AY      11.6    21.4    30.3
34   5B-AY       3.7     5.3     6.8
36   5D-AY       -.1     -.1     -.1

37   5E-AY        .4      .6     1.3
39   5F-AY       -.1     -.2     -.2
42   5G-AY        .2      .3     1.0
43   R01-B        .4      .5      .8
46   R03-B        .8     1.9     2.3

47   R04-B       -.5     -.7     -.8
51   R07-B        .6      .8     1.1
52   R08-B      -1.1    -1.2    -1.6
58   R11-B        .1      .8     1.0
60   R13-B       -.9    -2.8    -3.4

61   R14-B       1.8     2.4     2.5

SEP-05-89    15:30
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```
FILE: B-5U-1

READING    TONS        LBS       KG
   #4      3.44       6872     3117
   #5      1.98       3967     1800
   #6       .01         17        8

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1A-AY        .4      .5      .6
 1   1B-AY       1.3     1.0      .4
 2   1C-AY       1.6     1.1      .5
 3   1D-AY       -.2     -.1      .3
 5   1F-AY       -.3     -.1      .3

 7   1G-AY       0.0      .4     1.1
10   2B-AY       2.9     1.7      .3
11   2C-AY       2.9     1.6      .1
12   2D-AY        .1      .4      .8
14   2E-AY       -.3      .1      .8

15   2F-AY      -1.0     -.5      .2
16   2G-AY       -.9     -.4      .3
17   3A-AY       1.1      .7      .3
19   3C-AY       -.7     0.0     1.0
21   3E-AY      -1.5     -.6      .7

22   3F-AY      -1.1     -.4      .5
24   4A-AY       5.0     3.0      .2
25   4B-AY       6.3     3.7      .2
28   4D-AY      -1.3     -.6      .6
29   4E-AY      -1.0     -.4      .5

30   4F-AY      -1.4     -.5      .7
32   4G-AY      -2.0     -.2      .2
33   5A-AY      21.3    13.3     1.3
34   5B-AY       3.4     1.2     -.2
36   5D-AY       -.1     0.0     1.0

37   5E-AY       1.0     1.3     1.6
39   5F-AY       -.2     -.4    -1.9
42   5G-AY        .8      .8      .2
43   R01-B        .6      .5      .1
46   R03-B       1.8      .9      .2

47   R04-B       -.7     -.5      .2
51   R07-B        .8      .6      .1
52   R08-B      -1.2     -.9      .2
58   R11-B        .2      .1     0.0
60   R13-B      -2.8     -.9      .2

61   R14-B       2.4     1.9      .1

SEP-05-89    15:30
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```
FILE: B-2S-1

READING    TONS       LBS      KG
   #1      2.10      4205    1907
   #2      3.45      6900    3130
   #3      4.93      9862    4473

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1A-AY        .5      .6      .9
 1  1B-AY       1.9     3.2     4.5
 2  1C-AY       2.8     4.7     6.5
 3  1D-AY       -.1      .1      .1
 5  1F-AY      -1.4    -2.4    -3.3

 7  1G-AY      -1.5    -2.6    -3.6
10  2B-AY       3.9     6.4     9.1
11  2C-AY       4.7     7.7    11.0
12  2D-AY       -.8    -1.4    -1.8
14  2E-AY      -1.7    -2.9    -4.2

15  2F-AY      -1.8    -3.0    -4.2
16  2G-AY      -1.6    -2.7    -3.7
17  3A-AY        .6     1.0     1.3
19  3C-AY      -1.8    -3.0    -4.4
21  3E-AY       -.7    -1.3    -1.9

22  3F-AY        .3      .4      .4
24  4A-AY      -1.2    -2.1    -2.9
25  4B-AY       -.9    -1.5    -2.1
28  4D-AY      10.3    17.0    23.8
29  4E-AY      -5.0    -8.3   -11.6

30  4F-AY      -4.5    -7.4   -10.3
32  4G-AY      -4.6    -9.1   -11.6
33  5A-AY       1.0     1.1     1.3
34  5B-AY        .3      .3      .3
36  5D-AY       -.4     -.4     -.4

37  5E-AY       -.5    -1.7    -2.3
39  5F-AY      -2.0    -2.5    -3.2
42  5G-AY      -1.9    -2.3    -2.9
43  R01-B        .9     1.5     2.8
46  R03-B       0.0      .1      .2

47  R04-B        .1      .1      .3
51  R07-B       3.8     6.3     8.2
52  R08-B      -4.8    -7.6    -9.5
58  R11-B        .5     1.5     3.5
60  R13-B      -3.6    -6.1    -7.5

61  R14-B       4.1     6.6    10.1

SEP-05-89  17:28  PULLED FROM
UPPER PADEYE #3
```

```
FILE: B-2S-1

READING    TONS       LBS      KG
   #4      3.46      6929    3143
   #5      2.33      4662    2115
   #6      -.00        -6      -3

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1A-AY        .7      .6      .4
 1  1B-AY       3.4     2.4      .5
 2  1C-AY       4.9     3.4      .5
 3  1D-AY        .2      .2      .2
 5  1F-AY      -2.5    -1.6     0.0

 7  1G-AY      -2.5    -1.5      .4
10  2B-AY       7.0     4.8      .7
11  2C-AY       8.2     5.5      .2
12  2D-AY      -1.2     -.8      .4
14  2E-AY      -2.9    -1.7      .5

15  2F-AY      -3.0    -1.9      .2
16  2G-AY      -2.7    -1.7      .2
17  3A-AY        .9      .7     -.1
19  3C-AY      -3.0    -1.8      .4
21  3E-AY      -1.3     -.7      .2

22  3F-AY        .4      .4      .4
24  4A-AY      -2.1    -1.3     0.0
25  4B-AY      -1.6    -1.0      .1
28  4D-AY      17.6    11.7      .3
29  4E-AY      -8.5    -5.5      .3

30  4F-AY      -7.6    -4.9      .3
32  4G-AY      -9.6    -5.6     0.0
33  5A-AY       1.3     1.1      .8
34  5B-AY        .3      .3      .3
36  5D-AY       -.4     0.0     1.6

37  5E-AY      -1.1     -.4      .2
39  5F-AY      -2.5    -2.1      .2
42  5G-AY      -2.4    -1.9     0.0
43  R01-B       1.7     1.1     0.0
46  R03-B        .1     -.2     -.6

47  R04-B        .3      .2      .1
51  R07-B       6.4     4.6     -.2
52  R08-B      -7.6    -5.0     -.1
58  R11-B       1.7      .6     0.0
60  R13-B      -6.5    -4.0     -.1

61  R14-B       6.7     4.9     0.0

SEP-05-89  17:28  PULLED FROM
UPPER PADEYE #3
```

```
FILE: B-4S-1

READING     TONS        LBS       KG
   #1       2.02       4041     1833
   #2       3.61       7217     3273
   #3       4.80       9607     4358

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   1A-AY         .2      .4      .5
 1   1B-AY        1.3     2.2     2.9
 2   1C-AY        1.6     2.8     3.9
 3   1D-AY        -.4     -.7     -.8
 5   1F-AY        -.5     -.8    -1.1

 7   1G-AY        -.7    -1.0    -1.4
10   2B-AY        3.0     5.3     7.2
11   2C-AY        3.5     6.2     6.3
12   2D-AY        -.4     -.7     -.8
14   2E-AY       -1.1    -1.9    -2.6

15   2F-AY       -1.3    -2.3    -3.0
16   2G-AY       -1.1    -1.8    -2.5
17   3A-AY         .6     1.0     1.4
19   3C-AY       -1.2    -2.0    -2.7
21   3E-AY        -.5    -1.0    -1.3

22   3F-AY        1.1     2.0     2.8
24   4A-AY       -1.8    -3.2    -4.3
25   4B-AY        -.7    -1.3    -1.8
28   4D-AY       18.9    33.0    44.4
29   4E-AY       -8.5   -14.9   -20.0

30   4F-AY       -7.4   -13.0   -17.5
32   4G-AY       -8.9   -14.8   -20.7
33   5A-AY         .7     1.2     1.6
34   5B-AY         .2      .3      .4
36   5D-AY       -1.7    -2.2    -2.5

37   5E-AY        -.8    -3.3    -4.2
39   5F-AY       -2.8    -4.1    -4.5
42   5G-AY       -3.1    -5.2    -6.0
43   R01-B         .4     1.4     1.4
46   R03-B       -2.1    -2.4    -4.3

47   R04-B        1.3     3.2     3.4
51   R07-B        6.9    11.1    14.8
52   R08-B       -7.5   -12.7   -17.0
58   R11-B         .8     1.2     1.6
60   R13-B       -3.0    -5.4    -6.6

61   R14-B        5.3     9.5    14.5

SEP-05-89    16:08
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```
FILE: B-4S-1

READING     TONS        LBS       KG
   #4       3.53       7058     3202
   #5       1.97       3933     1784
   #6        .02         34       15

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   1A-AY         .6      .5      .6
 1   1B-AY        2.3     1.6      .5
 2   1C-AY        2.9     1.8      .4
 3   1D-AY        -.5     -.2      .2
 5   1F-AY        -.8     -.4       1

 7   1G-AY        -.8     -.2      .6
10   2B-AY        5.3     3.1      .4
11   2C-AY        6.2     3.5      .1
12   2D-AY        -.5     -.2      .3
14   2E-AY       -1.8     -.8      .6

15   2F-AY       -2.3    -1.3     -.1
16   2G-AY       -1.8    -1.1     -.1
17   3A-AY        1.0      .6      .1
19   3C-AY       -1.7     -.7      .9
21   3E-AY        -.9     -.3     0.0

22   3F-AY        2.1     1.3      .3
24   4A-AY       -3.2    -1.8      .1
25   4B-AY       -1.3     -.7      .1
28   4D-AY       32.9    18.8      .7
29   4E-AY      -14.7    -8.2      .2

30   4F-AY      -12.9    -7.2      .2
32   4G-AY      -14.7    -8.0      .2
33   5A-AY        1.2      .8      .1
34   5B-AY         .2      .1     0.0
36   5D-AY       -2.1     -.2      .2

37   5E-AY       -3.2     -.7      .5
39   5F-AY       -3.0     -.6     2.6
42   5G-AY       -5.0    -2.9      .4
43   R01-B        1.2      .4      .1
46   R03-B       -2.5    -2.1     -.2

47   R04-B        3.2     1.2     -.1
51   R07-B       11.0     6.8     -.1
52   R08-B      -12.7    -7.5     -.4
58   R11-B        1.2      .2     -.1
60   R13-B       -5.4    -3.0      .2

61   R14-B        9.5     5.3      .1

SEP-05-89    16:08
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```
FILE: C-1L-1

READING     TONS         LBS        KG
   #4       3.45        6906      3132
   #5       1.98        3967      1800
   #6       -.01         -11        -5

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1E-AY      66.1    38.8      .3
 1   2A-AY      -2.1    -1.2      .1
 2   3D-AY      -1.9    -1.2     -.2
 3   3G-AY       -.5     -.2      .2
 5   R17-A       3.3     1.9     -.1

 7   R17-C        .7     0.0     -.8
10   R09-A        .2      .1     -.2
11   R09-B       -.9     -.5      .2
12   R09-C       1.1      .8      .2
14   R12-A        .6     0.0      .6

15   R12-B      -5.8    -3.4     -.2
16   R02-A       0.0     -.1     -.2
17   R02-B       -.5     -.3     -.1
18   R02-C       -.1     -.2     -.3
19   R05-A        .1     -.1     -.5

21   R05-B      -1.9    -1.3     -.5
22   R05-C       1.4      .6     -.5
24   R17-C        .8      .2     -.5
25   R18-A        .8      .2     -.5
27   R18-B        .4      .1     -.2

28   R18-C       -.2     -.3     -.4
30   R01-C      -3.7    -3.8    -3.7
32   R12-C       2.4      .5     -.9
33   R16-A       1.6     1.1     -.8
34   R16-B      -3.8    -2.6     0.0

36   R16-C       4.2     2.1     0.0
37   6F-AY      -3.4    -1.8    -1.7
39   6B-AY        .5      .4     -.3
42   6C-AY       2.5     2.0      .1
43   6D-AY        .7      .9     1.0

44   6E-AY        .1      .1      .2
46   R15-A       -.3     -.2     -.2
47   6A-AY        .4      .3      .1
48   6G-AY       -.2     -.1      .4
50   S3-FO       3.2     1.0     -.1

51   S4-FO       1.1      .2     0.0
52   S5-FO       -.1     -.2     -.7
56   R16-B       6.0     3.8     -.1
60   S1-FO      11.7     6.7    -1.0
61   S2-FO       5.8     3.9     -.2

SEP-06-89    14:55
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```
FILE: C-1L-1

READING     TONS         LBS        KG
   #1       2.21        4419      2005
   #2       3.51        7019      3184
   #3       5.09       10189      4622

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1E-AY      42.4    66.5    96.5
 1   2A-AY      -1.2    -2.0    -3.0
 2   3D-AY      -1.2    -1.8    -2.7
 3   3G-AY       -.2     -.5     -.7
 5   R17-A       2.1     3.4     5.0

 7   R17-C        .6     1.0     1.5
10   R09-A        .2      .3      .4
11   R09-B       -.7    -1.0    -1.5
12   R09-C        .6     1.0     1.5
14   R12-A        .5      .8     1.3

15   R12-B      -3.7    -5.8    -8.4
16   R02-A        .1      .1      .1
17   R02-B       -.3     -.5     -.7
18   R02-C       0.0     -.1     -.1
19   R05-A        .2      .3      .4

21   R05-B      -1.1    -1.7    -2.5
22   R05-C       1.1     1.6     2.2
24   R17-C        .6     1.1     1.5
25   R18-A        .6      .9     1.3
27   R18-B        .3      .5      .7

28   R18-C       0.0     0.0     -.1
30   R01-C      -3.7    -3.9    -3.9
32   R12-C       2.2     2.6     3.5
33   R16-A       1.4     1.7     1.8
34   R16-B      -2.5    -3.8    -6.0

36   R16-C       3.5     4.2     7.4
37   6F-AY      -1.2    -1.4    -1.9
39   6B-AY        .5      .7      .9
42   6C-AY       2.1     2.5     4.9
43   6D-AY        .2      .1      .5

44   6E-AY       0.0      .1      .1
46   R15-A       -.1     -.1     -.3
47   6A-AY        .3      .4      .7
48   6G-AY       -.1     -.1     -.6
50   S3-FO       1.5     3.4     3.9

51   S4-FO        .5     1.2     1.6
52   S5-FO       0.0      .1      .1
56   R16-B       5.0     6.1     9.5
60   S1-FO       7.5    12.1    18.3
61   S2-FO       4.0     6.8    11.0

SEP-06-89    14:55
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```
FILE: C-2L-1

READING    TONS       LBS      KG
   #1      2.01      4018    1823
   #2      3.43      6855    3109
   #3      4.87      9749    4422

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1E-AY       4.3      7.4     10.6
 1   2A-AY      -4.6     -7.7    -11.0
 2   3D-AY        .4       .6       .8
 3   3G-AY      -3.0     -5.1     -7.1
 5   R17-A      10.6     18.2     25.9

 7   R17-C      -4.7     -7.6    -10.0
10   R09-A        .2       .4       .6
11   R09-B      -1.0     -1.7     -2.3
12   R09-C        .8      1.3      1.7
14   R12-A       2.2      3.8      5.4

15   R12-B     -13.5    -23.4    -33.5
16   R02-A        .4       .6       .9
17   R02-B      -3.2     -5.4     -7.5
18   R02-C       1.6      2.6      3.8
19   R05-A       -.1      -.2      -.2

21   R05-B       -.9     -1.5     -2.2
22   R05-C        .6      1.1      1.5
24   R17-C      11.6     19.6     27.2
25   R18-A        .7      1.2      1.6
27   R18-B        .4       .6       .9

28   R18-C       0.0      -.1      -.1
30   R01-C       -.1      -.2      -.3
32   R12-C      37.5     62.7     88.0
33   R16-A       2.8      4.3      6.6
34   R16-B      -3.6     -6.1     -7.6

36   R16-C       3.4      4.8      7.5
37   6F-AY       -.2      -.2      -.2
39   6B-AY        .9      1.2      1.9
42   6C-AY       2.2      3.6      5.5
43   6D-AY       -.1      -.4      -.5

44   6E-AY       -.1      -.2      -.2
46   R15-A      -3.2     -3.8     -6.0
47   6A-AY        .4       .5      2.1
48   6G-AY       -.2      -.7     -1.5
50   S3-FO       3.9      5.9      9.0

51   S4-FO       1.2      1.7      3.7
52   S5-FO       1.2      1.5      1.8
56   R16-B       5.8      9.5     13.3
60   S1-FO      -2.9     -4.6     -6.2
61   S2-FO       8.5     15.8     22.7

SEP-06-89   15:06    PULLED FROM
UPPER PADEYE #3
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```
FILE: C-2L-1

READING    TONS       LBS      KG
   #4      3.39      6782    3076
   #5      1.94      3888    1764
   #6      -.03       -51     -23

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1E-AY       7.4      4.3       .1
 1   2A-AY      -7.6     -4.3      0.0
 2   3D-AY        .6       .4       .2
 3   3G-AY      -4.9     -2.9       .1
 5   R17-A      17.4      9.6      -.3

 7   R17-C      -8.1     -5.6      -.4
10   R09-A        .4       .1      -.2
11   R09-B      -1.6     -1.0      -.2
12   R09-C       1.3       .8       .1
14   R12-A       3.2      1.3     -1.0

15   R12-B     -23.1    -13.3      -.1
16   R02-A        .5       .2      -.2
17   R02-B      -5.3     -3.3      -.6
18   R02-C       2.5      1.4      -.1
19   R05-A       -.2      -.3      -.4

21   R05-B      -1.6     -1.0      -.5
22   R05-C        .9       .4      -.5
24   R17-C      19.2     11.4      -.4
25   R18-A       1.1       .6      -.1
27   R18-B        .6       .2      -.2

28   R18-C       -.1      -.2      -.2
30   R01-C       -.5      -.4      -.4
32   R12-C      60.9     36.2      -.5
33   R16-A       4.1      2.6      -.1
34   R16-B      -6.1     -3.6      0.0

36   R16-C       4.7      2.0      0.0
37   6F-AY       -.2       .1       .3
39   6B-AY       1.2       .9      -.2
42   6C-AY       3.4      2.1      -.1
43   6D-AY       -.4      -.3      -.1

44   6E-AY       -.2      -.1      0.0
46   R15-A      -3.6     -3.0       .2
47   6A-AY        .5       .3       .1
48   6G-AY      -1.0      -.5      -.3
50   S3-FO       5.9      3.9      0.0

51   S4-FO       1.7      1.1      0.0
52   S5-FO       1.6      1.3       .6
56   R16-B       9.4      5.7      -.1
60   S1-FO      -4.6     -2.8       .2
61   S2-FO      15.6      8.2      -.1

SEP-06-89   15:06    PULLED FROM
UPPER PADEYE #3
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```
FILE: C-3L-1

READING    TONS          LBS        KG
    #1     2.07         4131      1874
    #2     3.87         7748      3514
    #3     4.95         9907      4494

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   1E-AY        -.9    -1.8    -2.3
 1   2A-AY       -1.2    -2.4    -3.1
 2   3D-AY       21.6    40.1    51.1
 3   3G-AY      -20.2   -37.7   -48.0
 5   R17-A        4.7     8.9    11.3

 7   R17-C        2.3     4.4     5.5
10   R09-A         .1      .2      .2
11   R09-B       -1.1    -2.0    -2.6
12   R09-C         .6     1.0     1.3
14   R12-A        -.2     -.3     -.1

15   R12-B        1.5     2.9     3.7
16   R02-A        -.4     -.7     -.9
17   R02-B      -19.1   -35.9   -45.9
18   R02-C       32.2    59.4    75.4
19   R05-A       -2.7    -5.0    -6.3

21   R05-B        1.8     3.3     4.2
22   R05-C       -2.0    -3.8    -4.9
24   R17-C         .9     1.6     2.0
25   R18-A        2.3     4.5     5.7
27   R18-B         .5     1.1     1.3

28   R18-C         .8     1.6     2.1
30   R01-C      -17.5   -32.4   -41.1
32   R12-C        6.4    10.6    14.0
33   R16-A        4.0     7.5    10.5
34   R16-B        -.4    -1.1    -1.8

36   R16-C         .1      .1      .1
37   6F-AY       -1.2    -2.0    -2.5
39   6B-AY         .7     2.1     4.1
42   6C-AY        2.0     4.5     5.5
43   6D-AY       -1.8    -2.1    -2.2

44   6E-AY        -.9    -1.1    -1.2
46   R15-A        3.6     5.8     7.5
47   6A-AY         .4      .6      .8
48   6G-AY        -.4     -.8    -1.5
50   S3-FO        9.0    17.3    21.6

51   S4-FO        5.0     8.9    11.5
52   S5-FO        1.9     2.7     3.8
56   R16-B       -5.1    -9.6   -12.6
60   S1-FO       -3.2    -5.3    -8.1
61   S2-FO       -3.6    -6.0    -7.5

SEP-06-89    15:51
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```
FILE: C-3L-1

READING    TONS          LBS        KG
    #4     3.35         6697      3038
    #5     2.07         4131      1674
    #6     -.01          -11        -5

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   1E-AY       -1.5     -.8      .3
 1   2A-AY       -2.0    -1.3      .3
 2   3D-AY       35.2    21.7     -.1
 3   3G-AY      -32.9   -19.9      .4
 5   R17-A        7.6     4.6     -.2

 7   R17-C        3.7     2.2     -.3
10   R09-A         .1      .1     -.1
11   R09-B       -1.7    -1.1     -.1
12   R09-C         .9      .6      .1
14   R12-A         .6     1.1     1.4

15   R12-B        2.5     1.6     0.0
16   R02-A        -.9     -.7     -.2
17   R02-B      -31.3   -19.0     -.1
18   R02-C       52.2    32.2     -.2
19   R05-A       -4.2    -2.5      .1

21   R05-B        2.9     1.8     -.2
22   R05-C       -3.2    -2.0     -.1
24   R17-C        1.3      .7     -.3
25   R18-A        3.9     2.3     -.2
27   R18-B         .8      .4     -.2

28   R18-C        1.3      .7     -.2
30   R01-C      -28.4   -17.5     0.0
32   R12-C       10.1     6.4     -.2
33   R16-A        7.2     4.0     0.0
34   R16-B        -.9     -.3     0.0

36   R16-C         .1      .2     -.1
37   6F-AY       -1.7     -.3      .3
39   6B-AY        1.8      .7     -.1
42   6C-AY        4.4     2.0    -1.2
43   6D-AY       -2.1    -1.7     0.0

44   6E-AY       -1.0     -.8     -.1
46   R15-A        4.2     1.9     0.0
47   6A-AY         .5      .4     0.0
48   6G-AY        -.6     -.4     -.1
50   S3-FO       15.6     9.3     0.0

51   S4-FO        7.8     5.0     0.0
52   S5-FO        2.3     1.9     -.1
56   R16-B       -8.8    -5.7     -.2
60   S1-FO       -4.6    -3.2     0.0
61   S2-FO       -4.5    -3.6     0.0

SEP-06-89    15:51
```

```
FILE: C-4L-1

READING    TONS        LBS       KG
   #1      2.26       4527     2053
   #2      3.63       7251     3289
   #3      4.97       9941     4509

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1E-AY       -.3      -.5      -.6
 1   2A-AY       -.5      -.8     -1.1
 2   3D-AY       2.8      4.2      5.8
 3   3G-AY       -.6      -.8     -1.1
 5   R17-A       0.0      0.0      0.0

 7   R17-C        .2       .3       .4
10   R09-A      -2.4     -3.8     -5.1
11   R09-B       1.2      1.9      2.6
12   R09-C      -2.4     -4.0     -5.5
14   R12-A       -.5      -.8      -.8

15   R12-B       -.9     -1.5     -2.0
16   R02-A       -.6      -.9     -1.2
17   R02-B       1.4      2.0      2.6
18   R02-C       5.3      8.3     11.4
19   R05-A       -.1      -.2      -.3

21   R05-B       -.9     -1.5     -2.0
22   R05-C        .3       .4       .6
24   R17-C       -.2      -.3      -.4
25   R18-A      16.7     26.2     35.9
27   R18-B       8.5     13.4     18.8

28   R18-C       3.0      4.5      5.9
30   R01-C      -5.0     -7.9    -11.0
32   R12-C       -.4      -.5      -.5
33   R16-A        .9      2.5      3.4
34   R16-B       7.6     11.5     15.6

36   R16-C      -3.6     -6.5     -7.4
37   6F-AY      -2.3     -2.9     -3.1
39   6B-AY`      1.8      3.9      4.4
42   6C-AY       3.4      4.4      5.8
43   6D-AY      -2.3     -2.9     -3.7

44   6E-AY      -1.2     -1.5     -1.7
46   R15-A       2.0      4.1      6.8
47   6A-AY        .6      2.0      3.5
48   6G-AY       -.2      -.6     -1.5
50   S3-FO      -3.8     -6.1     -7.7

51   S4-FO      14.7     22.3     30.1
52   S5-FO       2.0      3.3      4.1
56   R16-B      -3.8     -6.5     -8.2
60   S1-FO       -.5     -2.3     -2.7
61   S2-FO      -3.6     -4.5     -7.4

SEP-06-89    16:03
```

```
FILE: C-4L-1

READING    TONS        LBS       KG
   #4      3.51       7019     3184
   #5      2.00       3995     1812
   #6      -.00         -6       -3

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1E-AY       -.4      -.2       .1
 1   2A-AY       -.8      -.3       .2
 2   3D-AY       4.1      2.5       .1
 3   3G-AY       -.8      -.4       .1
 5   R17-A       0.0      -.1      -.2

 7   R17-C        .2       .1      -.2
10   R09-A      -3.6     -2.1      -.1
11   R09-B       1.9      1.1      0.0
12   R09-C      -3.8     -2.1       .1
14   R12-A       0.0       .6      1.9

15   R12-B      -1.3      -.8       .1
16   R02-A       -.9      -.6      -.1
17   R02-B       1.9       .9      -.1
18   R02-C       7.9      4.5      -.1
19   R05-A       -.3      -.3      -.4

21   R05-B      -1.6     -1.0      -.4
22   R05-C        .3      -.1      -.4
24   R17-C       -.4      -.3      -.2
25   R18-A      24.9     14.0      -.3
27   R18-B      12.8      7.1      -.4

28   R18-C       4.0      2.2      -.1
30   R01-C      -7.8     -4.6       .1
32   R12-C       -.5      -.3       .1
33   R16-A       1.6       .4      -.1
34   R16-B      10.8      6.3      -.1

36   R16-C      -6.5     -3.3      -.5
37   6F-AY      -2.7     -1.6       .1
39   6B-AY       2.6      1.3      0.0
42   6C-AY       4.3      2.0       .1
43   6D-AY      -2.8     -2.1      0.0

44   6E-AY      -1.5     -1.1      0.0
46   R15-A       3.9      1.5      -.2
47   6A-AY       1.8       .5      0.0
48   6G-AY       -.6      -.3      0.0
50   S3-FO      -5.7     -3.6      -.1

51   S4-FO      20.7     11.7      0.0
52   S5-FO       3.0      2.0       .2
56   R16-B      -6.3     -3.4      -.6
60   S1-FO      -2.0      -.4      -.2
61   S2-FO      -4.3     -3.6      0.0

SEP-06-89    16:02
```

```
FILE: C-5L-1

READING   TONS      LBS      KG
   #1     2.07     4131    1874
   #2     3.58     7160    3248
   #3     5.15    10302    4673

CH  GAUGE     #1 uS  #2 uS  #3 uS

 0  1E-AY       -.1    -.1    -.1
 1  2A-AY       -.3    -.6    -.9
 2  3D-AY       -.5    -.9   -1.2
 3  3G-AY       -.1    -.2    -.4
 5  R17-A        .3     .5     .6

 7  R17-C        .2     .4     .5
10  R09-A       0.0    -.1    -.1
11  R09-B       -.6   -1.2   -1.7
12  R09-C        .2     .5     .7
14  R12-A       -.3    -.5    -.6

15  R12-B       -.2    -.4    -.7
16  R02-A       -.4    -.7   -1.1
17  R02-B       -.6   -1.1   -1.5
18  R02-C       -.2    -.5    -.7
19  R05-A        .2     .4     .6

21  R05-B      -1.1   -2.0   -2.8
22  R05-C        .7    1.2    1.8
24  R17-C       -.1    -.1    -.2
25  R18-A       4.0    7.0   10.0
27  R18-B       1.4    2.3    3.3

28  R18-C        .9    1.6    2.2
30  R01-C       -.1    -.1    -.1
32  R12-C        .3     .5     .6
33  R16-A       1.4    1.6    1.9
34  R16-B       2.3    4.7    8.0

36  R16-C      -2.6   -3.4   -5.5
37  6F-AY      -2.9   -4.5   -5.3
39  6B-AY       1.7    4.1    6.7
42  6C-AY       3.4    6.9    9.8
43  6D-AY       -.9   -1.0   -2.8

44  6E-AY      -2.5   -3.6   -4.0
46  R15-A        .5    1.6    2.2
47  6A-AY        .2     .3    1.0
48  6G-AY      -1.3   -1.8   -3.9
50  S3-FO      -3.4   -4.3   -7.3

51  S4-FO       -.7   -2.7   -4.2
52  S5-FO      10.7   18.8   23.6
56  R16-B      -1.3   -3.6   -5.6
60  S1-FO       -.5   -2.4   -2.8
61  S2-FO      -2.4   -3.7   -4.2

SEP-06-89   16:46
```

```
FILE: C-5L-1

READING   TONS      LBS      KG
   #4     3.40     6799    3084
   #5     1.97     3939    1787
   #6     -.02      -34     -15

CH  GAUGE     #4 uS  #5 uS  #6 uS

 0  1E-AY        .1     .2     .4
 1  2A-AY       -.5    -.2     .1
 2  3D-AY       -.8    -.6    0.0
 3  3G-AY       -.1    0.0     .3
 5  R17-A        .4     .2    -.1

 7  R17-C        .2    0.0    -.3
10  R09-A       -.1    -.1    -.2
11  R09-B      -1.2    -.6    -.1
12  R09-C        .4     .3    0.0
14  R12-A       -.5    -.6    -.6

15  R12-B       -.2     .1     .6
16  R02-A       -.8    -.5    -.2
17  R02-B      -1.1    -.6    -.1
18  R02-C       -.5    -.3    -.1
19  R05-A        .3     .1    -.4

21  R05-B      -2.0   -1.2    -.3
22  R05-C       1.1     .5    -.4
24  R17-C       -.2    -.2    -.3
25  R18-A       6.5    3.6    -.3
27  R18-B       2.1    1.1    -.4

28  R18-C       1.5     .7    -.4
30  R01-C       -.2    -.2    -.1
32  R12-C        .5     .3     .2
33  R16-A       1.5    1.4     .6
34  R16-B       4.5    2.1    0.0

36  R16-C      -3.4   -2.9    -.4
37  6F-AY      -4.6   -3.1    -.7
39  6B-AY       4.1    1.6    -.1
42  6C-AY       6.2    3.1    -.7
43  6D-AY      -1.0    -.9    -.5

44  6E-AY      -3.4   -2.4    -.1
46  R15-A       1.6     .5     .1
47  6A-AY        .3     .2    -.1
48  6G-AY      -1.8   -1.4    -.1
50  S3-FO      -4.2   -3.4    0.0

51  S4-FO      -2.7    -.6    0.0
52  S5-FO      15.7    9.3    -.2
56  R16-B      -3.6   -1.1    0.0
60  S1-FO      -2.4    -.5    -.1
61  S2-FO      -3.7   -2.4    -.2

SEP-06-89   16:46
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```
FILE: C-6L-1

READING     TONS          LBS        KG
   #1       1.97         3933      1784
   #2       3.44         6883      3122
   #3       5.03        10054      4560

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   1E-AY        -.1      -.2      -.2
 1   2A-AY        -.4      -.6      -.9
 2   3D-AY        -.1      -.1      -.2
 3   3G-AY        -.1      -.2      -.3
 5   R17-A         .2       .2       .3

 7   R17-C         .1       .2       .2
10   R09-A         .1       .1       .1
11   R09-B        -.6     -1.2     -1.7
12   R09-C         .3       .6       .8
14   R12-A         .5       .9      1.3

15   R12-B        -.2      -.3      -.4
16   R02-A        -.2      -.3      -.4
17   R02-B        -.3      -.4      -.5
18   R02-C         .3       .5       .6
19   R05-A        -.1      -.1      -.1

21   R05-B        -.5      -.9     -1.4
22   R05-C         .2       .4       .5
24   R17-C        -.1      -.1      -.2
25   R18-A         .2       .4       .4
27   R18-B         .1       .2       .2

28   R18-C        -.1      -.1      -.1
30   R01-C        -.3      -.5      -.8
32   R12-C        0.0       .2       .2
33   R16-A         .1       .1       .1
34   R16-B         .5       .8      1.6

36   R16-C       -1.8     -2.7     -3.1
37   6F-AY       -5.5     -9.9    -15.9
39   6B-AY       -1.9     -3.1     -3.6
42   6C-AY        2.3      3.7      6.1
43   6D-AY        7.3     12.7     18.9

44   6E-AY        8.3     15.9     23.1
46   R15-A        0.0       .2       .4
47   6A-AY       -2.0     -2.6     -4.0
48   6G-AY       -9.5    -17.7    -26.3
50   S3-FO       -1.7     -2.3     -2.6

51   S4-FO        -.5      -.6     -1.3
52   S5-FO        -.2      -.6      -.2
56   R16-B        -.2      -.5     -1.3
60   S1-FO        -.2      -.5      -.6
61   S2-FO        -.3     -2.1     -2.6

   SER-06-89    17:00   LAST C CAL
```

```
FILE: C-6L-1

READING     TONS          LBS        KG
   #4       3.35         6702      3040
   #5       1.98         3962      1797
   #6       0.00            0         0

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   1E-AY        0.0       .1      0.0
 1   2A-AY        -.5      -.4      -.1
 2   3D-AY        -.1      -.1       .1
 3   3G-AY        -.1       .1       .2
 5   R17-A         .2       .1      -.1

 7   R17-C         .1      -.1      -.2
10   R09-A        0.0      -.1      -.2
11   R09-B       -1.2      -.8      -.1
12   R09-C         .5       .3      -.1
14   R12-A        1.6      1.8      2.1

15   R12-B        -.2      -.1       .2
16   R02-A        -.3      -.2      -.1
17   R02-B        -.3      -.2       .1
18   R02-C         .3       .2      -.1
19   R05-A        -.2      -.3      -.4

21   R05-B       -1.1      -.7      -.5
22   R05-C         .2      -.1      -.4
24   R17-C        -.2      -.2      -.2
25   R18-A         .3       .1      0.0
27   R18-B        0.0      -.1      -.3

28   R18-C        -.1      -.1      -.2
30   R01-C        -.6      -.4      0.0
32   R12-C         .2      0.0      0.0
33   R16-A         .1       .1      0.0
34   R16-B         .6       .5       .1

36   R16-C       -2.7     -1.9      -.5
37   6F-AY       -9.7     -5.6       .7
39   6B-AY       -3.1     -2.0      -.1
42   6C-AY        3.7      2.3      -.1
43   6D-AY       12.2      7.5      0.0

44   6E-AY       15.7      8.4      0.0
46   R15-A         .2       .1      0.0
47   6A-AY       -2.6     -2.0       .1
48   6G-AY      -17.3     -9.8      0.0
50   S3-FO       -2.1     -1.5       .1

51   S4-FO        -.5      -.5       .3
52   S5-FO        0.0       .2      1.4
56   R16-B        -.5      -.2      0.0
60   S1-FO        -.4      -.2      0.0
61   S2-FO       -2.1      -.3      -.1

   SER-06-89    17:00   LAST C CAL
```

```
FILE: C-1U-1

READING   TONS      LBS     KG
   #1     2.09     4171   1892
   #2     3.57     7138   3238
   #3     4.98     9963   4519

CH  GAUGE    #1 uS  #2 uS  #3 uS

 0  1E-AY       .4     .7    1.0
 1  2A-AY       .1    0.0    0.0
 2  3D-AY      -.3    -.7    -.9
 3  3G-AY      -.3    -.6    -.9
 5  R17-A      -.5    -.8   -1.1

 7  R17-C      0.0     .1     .1
10  R09-A       .1     .2     .3
11  R09-B      -.2    -.4    -.5
12  R09-C       .5     .8    1.0
14  R12-A       .2     .4     .5

15  R12-B      -.4    -.7   -1.0
16  R02-A      -.2    -.4    -.5
17  R02-B      -.7   -1.2   -1.5
18  R02-C       .2     .3     .5
19  R05-A      0.0    0.0    0.0

21  R05-B      -.5    -.7    -.9
22  R05-C       .4     .7    1.0
24  R17-C      -.5    -.7    -.9
25  R18-A      -.1    -.2    -.2
27  R18-B      0.0     .1     .1

28  R18-C      -.2    -.2    -.3
30  R01-C      -.3    -.4    -.6
32  R12-C       .1     .1     .1
33  R16-A       .1     .2     .2
34  R16-B      -.5   -2.2   -3.4

36  R16-C       .9    1.5    3.4
37  6F-AY      -.2    -.1    -.2
39  6B-AY      1.0    1.5    1.8
42  6C-AY       .4     .5    2.0
43  6D-AY      -.1    -.1    -.2

44  6E-AY      -.1    -.2    -.3
46  R15-A       .1     .1     .2
47  6A-AY      0.0    0.0    0.0
48  6G-AY      -.4    -.8    -.9
50  S3-FO       .4    1.6    3.1

51  S4-FO       .2     .4     .5
52  S5-FO     -2.7   -1.9   -2.3
56  R16-B       .9    3.1    4.2
60  S1-FO      2.1    2.7    3.0
61  S2-FO      1.4    3.5    4.0

SEP-06-89  14:38
```

```
FILE: C-1U-1

READING   TONS      LBS     KG
   #4     3.44     6883   3122
   #5     1.95     3899   1769
   #6      .00        6      3

CH  GAUGE    #4 uS  #5 uS  #6 uS

 0  1E-AY       .7     .4     .2
 1  2A-AY      0.0     .1    -.1
 2  3D-AY      -.7    -.3     .1
 3  3G-AY      -.4    -.1     .6
 5  R17-A      -.9    -.6    -.2

 7  R17-C      -.1    -.1    -.2
10  R09-A       .2     .1    -.2
11  R09-B      -.4    -.2    0.0
12  R09-C       .9     .6    0.0
14  R12-A       .4     .5    1.3

15  R12-B      -.6    -.4     .1
16  R02-A      -.4    -.2    -.1
17  R02-B     -1.1    -.5     .2
18  R02-C       .3     .1    -.2
19  R05-A      -.1    -.2    -.6

21  R05-B      -.8    -.7    -.6
22  R05-C       .6     .1    -.6
24  R17-C      -.7    -.5    -.2
25  R18-A      -.2    -.2    -.2
27  R18-B       .1    0.0    0.0

28  R18-C      -.2    -.2    -.1
30  R01-C      -.4    0.0     .2
32  R12-C      0.0     .1     .1
33  R16-A       .1    -.1    -.8
34  R16-B     -2.1    -.5    0.0

36  R16-C      1.4     .5    0.0
37  6F-AY       .7    1.2    1.3
39  6B-AY      1.6     .9    0.0
42  6C-AY       .5     .3    -.3
43  6D-AY      -.1    -.1    0.0

44  6E-AY      -.2    -.1     .1
46  R15-A      0.0    -.1    -.2
47  6A-AY      0.0    0.0    0.0
48  6G-AY      -.7    -.1     .2
50  S3-FO      1.4     .3    0.0

51  S4-FO       .4     .2    0.0
52  S5-FO     -2.4   -2.0   -3.1
56  R16-B      2.4     .8   -1.4
60  S1-FO      2.6    1.7    -.2
61  S2-FO      3.4     .7    -.1

SEP-06-89  14:38
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```
FILE: C-2U-1

READING     TONS        LBS      KG
    #4      3.48       6962    3158
    #5      1.99       3984    1807
    #6      -.00         -6      -3

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   1E-AY        -.8     -.6     -.3
 1   2A-AY       12.4     7.7      .4
 2   3D-AY       -1.5     -.9      .1
 3   3G-AY       -1.3     -.5      .4
 5   R17-A       -2.8    -1.6     -.2

 7   R17-C       -1.9    -1.1     -.1
10   R09-A         .6      .3     -.2
11   R09-B        -.6     -.3     -.1
12   R09-C        1.7     1.1     -.1
14   R12-A        -.8      .2     1.7

15   R12-B        -.3     -.2     -.1
16   R02-A        -.6     -.5     -.2
17   R02-B       -1.9    -1.2     -.1
18   R02-C         .6      .3     -.1
19   R05-A        1.6      .9     -.4

21   R05-B         .6      .2     -.4
22   R05-C        3.3     1.7     -.4
24   R17-C        -.3     -.3     -.3
25   R18-A         .1     0.0     -.1
27   R18-B         .1     -.1     -.3

28   R18-C        -.3     -.2     -.2
30   R01-C       -1.7     -.8     -.3
32   R12-C        -.1     -.4     -.4
33   R16-A        1.2      .4     -.1
34   R16-B       -5.8    -3.6     -.1

36   R16-C        3.6     1.3     -.2
37   6F-AY       -1.5    -1.2     -.5
39   6B-AY         .8      .5      .1
42   6C-AY        2.5     2.0     0.0
43   6D-AY       -1.2     -.9     -.8

44   6E-AY        -.8     -.7     -.4
46   R15-A        1.3      .7     -.5
47   6A-AY         .2      .1     -.1
48   6G-AY       -1.6     -.3     -.1
50   S3-FO        4.2     3.2     -.1

51   S4-FO        1.7     1.2     0.0
52   S5-FO        1.6     1.2     -.4
56   R16-B        7.1     5.2     -.2
60   S1-FO       -3.6    -1.9     -.5
61   S2-FO        5.3     3.6     -.1

SEP-06-89    15:31   PULLED FROM
UPPER PADEYE #3
```

```
FILE: C-2U-1

READING     TONS        LBS      KG
    #1      1.97       3945    1789
    #2      3.53       7058    3202
    #3      5.04      10088    4576

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   1E-AY        -.4     -.8    -1.0
 1   2A-AY        6.5    11.4    16.2
 2   3D-AY        -.8    -1.5    -2.1
 3   3G-AY        -.7    -1.3    -1.7
 5   R17-A       -1.5    -2.7    -3.8

 7   R17-C       -1.0    -1.7    -2.5
10   R09-A         .3      .6      .9
11   R09-B        -.4     -.5     -.8
12   R09-C         .9     1.6     2.2
14   R12-A        -.7    -1.2    -1.5

15   R12-B        -.2     -.2     -.3
16   R02-A        -.4     -.5     -.7
17   R02-B        -.9    -1.8    -2.6
18   R02-C         .3      .6      .9
19   R05-A         .8     1.5     2.2

21   R05-B         .2      .5      .9
22   R05-C        1.8     3.2     4.6
24   R17-C        -.2     -.2     -.3
25   R18-A         .1      .1      .1
27   R18-B         .1      .1      .2

28   R18-C        -.1     -.1     -.2
30   R01-C        -.8    -1.2    -1.6
32   R12-C         .1     -.3      .2
33   R16-A         .5     1.2     2.2
34   R16-B       -3.4    -5.6    -7.3

36   R16-C        1.2     3.5     4.2
37   6F-AY       -1.2    -1.5    -1.6
39   6B-AY         .5      .7     1.3
42   6C-AY        1.9     2.3     3.7
43   6D-AY        -.9    -1.2    -1.3

44   6E-AY        -.6     -.8     -.9
46   R15-A         .8     1.3     3.1
47   6A-AY         .1      .2     1.6
48   6G-AY        -.3    -1.4    -2.2
50   S3-FO        2.6     4.0     5.7

51   S4-FO        1.2     1.6     3.5
52   S5-FO        1.4     1.6     1.7
56   R16-B        4.9     7.0     9.6
60   S1-FO       -1.0    -3.4    -4.7
61   S2-FO        3.5     5.0     7.8

SEP-06-89    15:31   PULLED FROM
UPPER PADEYE #3
```

```
FILE: C-3U-1

READING    TONS        LBS       KG
   #1      1.98       3967     1800
   #2      3.57       7132     3235
   #3      4.93       9850     4468

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1E-AY      -.4     -.6     -.9
 1   2A-AY       .9     1.7     2.2
 2   3D-AY     -1.2    -2.1    -2.5
 3   3G-AY      -.2     -.2     -.1
 5   R17-A      -.4     -.8    -1.0

 7   R17-C      -.1     0.0     0.0
10   R09-A      1.0     1.7     2.4
11   R09-B       .1      .2      .4
12   R09-C      2.4     4.4     6.0
14   R12-A       .4     1.0     1.7

15   R12-B     -1.2    -2.1    -2.9
16   R02-A      -.5    -1.0    -1.4
17   R02-B      -.6    -1.2    -1.6
18   R02-C     -1.0    -1.7    -2.0
19   R05-A      6.9    11.9    15.7

21   R05-B    -12.8   -22.5   -29.9
22   R05-C      9.5    17.1    24.3
24   R17-C      -.4     -.6     -.9
25   R18-A      -.2     -.4     -.6
27   R18-B       .2      .4      .5

28   R18-C      -.5     -.7     -.9
30   R01-C      0.0      .1     -.1
32   R12-C       .9     1.5     3.1
33   R16-A      3.6     5.5     8.3
34   R16-B      1.5     3.8     5.3

36   R16-C     -2.2    -3.3    -3.4
37   6F-AY     -1.3    -1.5    -1.8
39   6B-AY       .7     2.0     4.0
42   6C-AY      2.8     5.6     6.3
43   6D-AY      -.5    -1.1    -1.6

44   6E-AY      -.9    -1.0    -1.3
46   R15-A      3.7     7.1     8.5
47   6A-AY      1.8     1.9     2.0
48   6G-AY     -1.2    -3.1    -3.6
50   S3-FO      4.0     7.7    10.5

51   S4-FO      3.6     5.3     7.6
52   S5-FO      2.2     3.6     5.9
56   R16-B     -1.3    -2.2    -5.0
60   S1-FO     -3.3    -5.3    -8.4
61   S2-FO     -3.5    -4.5    -7.5

 SEP-06-89     15:41
```

```
FILE: C-3U-1

READING    TONS        LBS       KG
   #4      3.42       6838     3102
   #5      2.00       4007     1817
   #6      -.03        -62      -28

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1E-AY      -.6     -.2      .1
 1   2A-AY      1.7     1.1      .3
 2   3D-AY     -1.9    -1.1     0.0
 3   3G-AY      0.0      .1      .2
 5   R17-A      -.8     -.5     -.2

 7   R17-C      -.2     -.2     -.2
10   R09-A      1.6      .9     -.1
11   R09-B       .1     0.0     -.1
12   R09-C      4.2     2.4     -.2
14   R12-A      2.3     3.0     3.9

15   R12-B     -2.0    -1.2     -.1
16   R02-A      -.9     -.6     -.1
17   R02-B     -1.2     -.8     -.2
18   R02-C     -1.6    -1.0     -.1
19   R05-A     11.4     6.7     -.2

21   R05-B    -21.6   -13.0     -.4
22   R05-C     16.3     9.3     -.4
24   R17-C      -.7     -.5     -.3
25   R18-A      -.4     -.2     -.1
27   R18-B       .2      .1     -.2

28   R18-C      -.7     -.5     -.2
30   R01-C       .1      .1      .1
32   R12-C      1.4      .9     -.1
33   R16-A      5.0     3.6     -.1
34   R16-B      3.8     1.5     -.1

36   R16-C     -3.3    -2.4     -.1
37   6F-AY     -1.0      .2     2.0
39   6B-AY      2.0      .7     0.0
42   6C-AY      5.5     3.1      .1
43   6D-AY      -.8     -.5      .9

44   6E-AY     -1.0     -.9      .1
46   R15-A      6.9     3.5     -.2
47   6A-AY      1.9     1.8      .1
48   6G-AY     -2.7    -1.5     -.1
50   S3-FO      6.0     4.0     0.0

51   S4-FO      5.1     3.6     0.0
52   S5-FO      3.6     2.5     2.0
56   R16-B     -2.2    -1.5     -.1
60   S1-FO     -5.1    -3.9     -.1
61   S2-FO     -4.3    -3.5     -.1

 SEP-06-89     15:41
```

```
FILE: C-4U-1

READING    TONS        LBS       KG
   #1      1.84       3679     1669
   #2      3.54       7075     3209
   #3      4.80       9602     4355

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1E-AY       -.4     -.6     -.9
 1  2A-AY       -.1     -.2     -.2
 2  3D-AY       -.4     -.7     -.9
 3  3G-AY       -.9    -1.8    -2.4
 5  R17-A       0.0     0.0     0.0

 7  R17-C        .3      .5      .6
10  R09-A       5.8    11.3    15.3
11  R09-B     -11.2   -21.7   -29.4
12  R09-C       9.9    18.7    25.2
14  R12-A        .5      .8     1.1

15  R12-B       -.7    -1.3    -1.8
16  R02-A       -.2     -.4     -.6
17  R02-B      -1.3    -2.6    -3.4
18  R02-C        .6     1.0     1.4
19  R05-A        .7     1.3     1.8

21  R05-B      -2.6    -4.9    -6.6
22  R05-C       -.1     -.3     -.5
24  R17-C       -.2     -.6     -.7
25  R18-A      -1.7    -3.2    -4.2
27  R18-B       -.9    -1.7    -2.4

28  R18-C       -.2     -.2     -.4
30  R01-C       -.6    -1.3    -1.7
32  R12-C        .5     2.3     2.4
33  R16-A        .3      .8     1.6
34  R16-B       2.4     7.1     8.5

36  R16-C      -2.8    -6.2    -7.2
37  6F-AY      -1.9    -3.4    -3.6
39  6B-AY       1.3     4.1     4.6
42  6C-AY       3.4     5.5     8.0
43  6D-AY      -1.9    -2.5    -3.5

44  6E-AY      -1.2    -1.7    -2.0
46  R15-A       1.8     4.4     7.2
47  6A-AY        .3     1.3     2.0
48  6G-AY       -.7    -3.0    -3.9
50  S3-FO      -2.4    -3.6    -3.9

51  S4-FO       3.8     7.4     9.4
52  S5-FO       2.5     6.5     8.8
56  R16-B      -2.9    -6.1    -7.9
60  S1-FO      -2.4    -4.1    -4.8
61  S2-FO      -3.6    -6.1    -7.8

SEP-06-89    16:25
```

```
FILE: C-4U-1

READING    TONS        LBS       KG
   #4      3.42       6838     3102
   #5      1.94       3882     1761
   #6      -.05        -96      -44

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1E-AY       -.4     0.0      .2
 1  2A-AY       0.0      .1      .1
 2  3D-AY       -.7     -.2      .2
 3  3G-AY      -1.6     -.7      .7
 5  R17-A       0.0      .1      .1

 7  R17-C        .5      .2      .2
10  R09-A      10.8     6.1     -.1
11  R09-B     -21.2   -12.3     -.2
12  R09-C      18.0    10.4     0.0
14  R12-A       1.6     2.0     3.0

15  R12-B      -1.2     -.5      .6
16  R02-A       -.4     -.3      .1
17  R02-B      -2.5    -1.5     0.0
18  R02-C       1.0      .6      .2
19  R05-A       1.2      .5     -.5

21  R05-B      -4.9    -3.0     -.4
22  R05-C       -.4     -.4     -.4
24  R17-C       -.6     -.4     -.1
25  R18-A      -3.1    -1.7      .3
27  R18-B      -1.7    -1.1     -.1

28  R18-C       -.3     -.2      .1
30  R01-C      -1.2     -.6     0.0
32  R12-C       2.3     2.0      .5
33  R16-A        .7      .3     0.0
34  R16-B       6.3     3.8      .1

36  R16-C      -6.1    -3.4     -.7
37  6F-AY      -3.2    -1.8     2.0
39  6B-AY       3.9     1.5     0.0
42  6C-AY       5.2     3.6     -.7
43  6D-AY      -2.4    -2.0     0.0

44  6E-AY      -1.7    -1.2     -.2
46  R15-A       4.3     1.8     -.2
47  6A-AY       1.2      .4     -.1
48  6G-AY      -2.8     -.7     -.1
50  S3-FO      -3.6    -2.4      .1

51  S4-FO       7.3     3.9     -.1
52  S5-FO       5.7     2.8      .9
56  R16-B      -6.1    -3.7     -.2
60  S1-FO      -4.1    -2.5      .7
61  S2-FO      -5.8    -3.6     0.0

SEP-06-89    16:25
```

```
FILE: C-5U-1

READING    TONS       LBS      KG
   #4      3.39      6782    3076
   #5      1.90      3809    1728
   #6      -.03       -68     -31

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1E-AY       -.3     -.1      .1
 1  2A-AY       -.3     -.1     0.0
 2  3D-AY       -.3     -.1      .1
 3  3G-AY      -1.3     -.5      .2
 5  R17-A       0.0     0.0      .2

 7  R17-C       0.0     -.1     -.5
10  R09-A       1.2      .8     -.2
11  R09-B      -5.4    -3.0     -.2
12  R09-C        .2      .1      .1
14  R12-A       1.6     2.1     2.3

15  R12-B       -.8     0.0      .6
16  R02-A       -.3     -.2      .1
17  R02-B      -1.7     -.9      .2
18  R02-C       1.2      .6      .2
19  R05-A        .1     -.1     -.2

21  R05-B      -1.5    -1.0     -.5
22  R05-C       1.3      .6     -.1
24  R17-C       -.5     -.3     -.2
25  R18-A       -.4     -.4      .2
27  R18-B        .1     0.0     -.1

28  R18-C       -.7     -.4     -.2
30  R01-C      -1.1     -.4      .2
32  R12-C        .5      .3      .2
33  R16-A        .3      .2      .1
34  R16-B       4.3     1.8      .1

36  R16-C      -4.2    -2.2      .8
37  6F-AY       0.0      .5     2.6
39  6B-AY       4.2     2.0     -.1
42  6C-AY       7.9     4.2      .2
43  6D-AY      -3.7    -2.3      .2

44  6E-AY      -1.8    -1.4     1.2
46  R15-A       2.0     1.0      .3
47  6A-AY       3.1     1.0     0.0
48  6G-AY      -3.0     -.8      .9
50  S3-FO      -4.0    -2.7     -.1

51  S4-FO       3.1     1.3     -.1
52  S5-FO       8.8     4.3    -2.7
56  R16-B      -3.9    -1.5     0.0
60  S1-FO      -3.3    -1.0     -.7
61  S2-FO      -3.9    -2.4     0.0

 SEP-06-89    16:36
```

```
FILE: C-5U-1

READING    TONS       LBS      KG
   #1      1.92      3832    1738
   #2      3.59      7188    3261
   #3      4.98      9952    4514

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1E-AY       -.3     -.5     -.6
 1  2A-AY       -.2     -.4     -.5
 2  3D-AY       -.2     -.4     -.5
 3  3G-AY       -.7    -1.4    -2.0
 5  R17-A        .1      .1      .1

 7  R17-C        .1      .1      .1
10  R09-A        .6     1.2     1.6
11  R09-B      -3.2    -5.7    -7.8
12  R09-C        .1      .1      .2
14  R12-A        .3      .4     1.0

15  R12-B       -.6    -1.0    -1.3
16  R02-A       -.2     -.4     -.5
17  R02-B      -1.0    -1.9    -2.5
18  R02-C        .8     1.2     1.6
19  R05-A        .2      .2      .3

21  R05-B       -.8    -1.4    -1.9
22  R05-C       1.0     1.4     1.9
24  R17-C       -.3     -.5     -.6
25  R18-A       -.2     -.4     -.6
27  R18-B        .2      .4      .4

28  R18-C       -.4     -.8    -1.0
30  R01-C       -.8    -1.2    -1.8
32  R12-C        .2      .3      .5
33  R16-A        .3      .3      .4
34  R16-B       1.8     4.4     7.4

36  R16-C      -2.3    -4.4    -5.8
37  6F-AY      -2.3    -3.2    -3.9
39  6B-AY       1.9     4.3     7.4
42  6C-AY       4.2     8.0    11.7
43  6D-AY      -2.1    -3.7    -4.2

44  6E-AY      -1.3    -1.8    -2.6
46  R15-A        .6     1.1     1.1
47  6A-AY       1.3     3.4     3.9
48  6G-AY       -.6    -3.1    -4.4
50  S3-FO      -3.4    -4.2    -6.7

51  S4-FO       1.3     3.2     3.5
52  S5-FO       4.5     9.5    14.5
56  R16-B      -1.1    -3.9    -5.9
60  S1-FO      -1.3    -3.3    -4.3
61  S2-FO      -2.4    -3.9    -4.7

 SEP-06-89    16:36
```

```
FILE: C-2S-1

READING    TONS       LBS      KG
   #4      3.42      6832    3099
   #5      2.08      4154    1884
   #6      0.00         0       0

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1E-AY      -1.1     -.4      .7
 1   2A-AY      -1.1     -.7      .2
 2   3D-AY        .2      .1     0.0
 3   3G-AY      -2.2    -1.3      .2
 5   R17-A        .2      .2     0.0

 7   R17-C        .9      .6     -.2
10   R09-A      -1.0     -.7     -.1
11   R09-B       -.1     -.1     -.1
12   R09-C       -.3     -.3     0.0
14   R12-A      -2.0    -2.3    -3.1

15   R12-B      -2.7    -1.6     0.0
16   R02-A       -.5     -.3      .1
17   R02-B      -1.9    -1.0      .4
18   R02-C       3.2     2.0      .1
19   R05-A        .2     0.0     -.4

21   R05-B      -2.7    -1.8     -.4
22   R05-C       2.5     1.5     - 4
24   R17-C       -.9     -.7     -.2
25   R18-A       5.0     3.2     -.2
27   R18-B       1.8     1.0     -.2

28   R18-C         9      .5     - 2
30   R01-C      -2.9    -1.8      .1
32   R12-C       1.1      .6     -.3
33   R16-A       4.7     3.3     -.1
34   R16-B      30.6    19.5     -.2

36   R16-C      37.7    23.0     - 3
37   6F-AY       -.4     -.4     -.2
39   6B-AY       1.5      .8     0.0
42   6C-AY       4.4     2.4     -.1
43   6D-AY       -.5     -.3     -.1

44   6E-AY       -.1     0.0      .1
46   R15-A      -3.5     -.4     1.7
47   6A-AY        .5      .4      .2
48   6G-AY       -.1     -.1     0.0
50   S3-FO      -3.4    -2.1      .1

51   S4-FO      -3.7    -1.0     0.0
52   S5-FO      -2.1    -1.4     -.2
56   R16-B     -11.4    -7.3     1.9
60   S1-FO       2.0      .6     -.4
61   S2-FO     -31.5   -20.7      .1

SEP-06-89    15:19
```

```
FILE: C-2S-1

READING    TONS       LBS      KG
   #1      2.08      4154    1884
   #2      3.58      7160    3248
   #3      4.97      9941    4509

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1E-AY       -.9    -1.5    -2.0
 1   2A-AY       -.4    -1.0    -1.4
 2   3D-AY        .1      .2      .2
 3   3G-AY      -1.3    -2.3    -3.2
 5   R17-A        .1      .2      .3

 7   R17-C        .6     1.1     1.4
10   R09-A       -.5    -1.0    -1.3
11   R09-B       0.0     -.1     -.1
12   R09-C       -.2     -.3     -.5
14   R12-A       -.8    -1.2    -1.7

15   R12-B      -1.6    -2.7    -3.9
16   R02-A       -.4     -.6     -.9
17   R02-B      -1.1    -1.9    -2.8
18   R02-C       1.9     3.2     4.5
19   R05-A        .3      .4      .5

21   R05-B      -1.4    -2.6    -3.6
22   R05-C       1.7     2.8     3.8
24   R17-C       -.5     -.9    -1.3
25   R18-A       2.9     5.0     7.1
27   R18-B       1.1     1.8     2.5

28   R18-C        .6      .9     1.5
30   R01-C      -1.8    -2.9    -4.1
32   R12-C        .6     1.1     2.8
33   R16-A       3.7     5.3     7.3
34   R16-B      19.1    30.6    40.5

36   R16-C      22.5    37.7    51.9
37   6F-AY       0.0     -.2     -.4
39   6B-AY        .8     1.7     2.6
42   6C-AY       2.3     4.6     6.0
43   6D-AY       -.3     -.5     -.5

44   6E-AY       -.1     -.1     -.2
46   R15-A      -3.6    -5.9    -7.1
47   6A-AY        .4      .5      .5
48   6G-AY       -.1     -.2     -.6
50   S3-FO      -2.3    -3.5    -4.0

51   S4-FO      -1.3    -3.7    -4.2
52   S5-FO      -1.9    -2.2    -2.4
55   R16-B      -7.6   -12.4   -16.1
60   S1-FO        .4     1.9     2.7
61   S2-FO     -19.4   -31.4   -41.8

SEF-06-89    15:19
```

```
FILE: C-4S-1

READING   TONS       LBS      KG
   #4     3.40      6804    3086
   #5     2.05      4103    1861
   #6     -.00        -6      -3

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1E-AY       -.6     -.2      .3
 1  2A-AY       -.7     -.4     -.2
 2  3D-AY       2.5     1.6      .1
 3  3G-AY      -2.4    -1.3      .3
 5  R17-A        .2      .2      .2

 7  R17-C        .6      .4      .1
10  R09-A      -1.6    -1.0     -.2
11  R09-B      -1.1     -.7     -.2
12  R09-C       -.9     -.6     -.1
14  R12-A       2.1     2.4     2.8

15  R12-B      -1.7     -.9      .4
16  R02-A       -.9     -.5      .1
17  R02-B      -2.0    -1.1      .1
18  R02-C       4.5     2.7     0.0
19  R05-A        .4      .1     -.4

21  R05-B      -2.7    -1.7     -.4
22  R05-C       1.5      .8     -.4
24  R17-C       -.6     -.4     -.1
25  R18-A       7.3     4.5      .1
27  R18-B       2.9     1.7     -.2

28  R18-C       1.2      .6      .1
30  R01-C      -4.7    -2.9     0.0
32  R12-C        .8      .5      .2
33  R16-A       3.5     1.1     -.1
34  R16-B      19.2    10.0     0.0

36  R16-C      -6.4    -4.5     0.0
37  6F-AY      -3.4    -2.8     0.0
39  6B-AY       4.3     1.8     -.1
42  6C-AY       4.5     3.6     -.1
43  6D-AY      -3.6    -2.4      .1

44  6E-AY      -1.6    -1.3     0.0
46  R15-A       7.5     4.1     -.1
47  6A-AY       3.2     1.0     0.0
48  6G-AY      -2.5     -.7     0.0
50  S3-FO     -11.6    -7.5      .1

51  S4-FO      19.7    11.8     0.0
52  S5-FO       1.6     1.1      .1
56  R16-B      -8.0    -4.6     -.1
60  S1-FO       -.5     -.4      .1
61  S2-FO      -6.2    -3.8      .1

SEP-06-89    16:14
```

```
FILE: C-4S-1

READING   TONS       LBS      KG
   #1     2.06      4125    1871
   #2     3.52      7030    3189
   #3     5.09     10172    4614

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1E-AY       -.4     -.7    -1.2
 1  2A-AY       -.6     -.9    -1.3
 2  3D-AY       1.6     2.6     3.7
 3  3G-AY      -1.5    -2.5    -3.7
 5  R17-A        .2      .2      .4

 7  R17-C        .4      .7      .9
10  R09-A      -1.0    -1.7    -2.3
11  R09-B       -.6    -1.1    -1.5
12  R09-C       -.5     -.9    -1.2
14  R12-A        .6     1.2     1.6

15  R12-B      -1.1    -1.8    -2.6
16  R02-A       -.6     -.9    -1.4
17  R02-B      -1.2    -2.1    -3.0
18  R02-C       2.8     4.7     6.7
19  R05-A        .2      .4      .6

21  R05-B      -1.6    -2.7    -3.9
22  R05-C        .9     1.6     2.3
24  R17-C       -.4     -.5     -.8
25  R18-A       4.5     7.7    10.9
27  R18-B       1.9     3.2     4.7

28  R18-C        .7     1.2     1.8
30  R01-C      -2.9    -4.8    -7.0
32  R12-C        .4      .8     2.5
33  R16-A       1.5     3.6     4.3
34  R16-B      10.8    19.3    27.4

36  R16-C      -4.4    -6.4    -9.3
37  6F-AY      -3.0    -3.4    -5.4
39  6B-AY       1.8     4.3     6.5
42  6C-AY       3.6     4.8     8.0
43  6D-AY      -2.4    -3.7    -4.2

44  6E-AY      -1.3    -1.7    -3.2
46  R15-A       4.1     7.7     9.9
47  6A-AY       1.1     3.4     4.0
48  6G-AY       -.6    -2.5    -3.7
50  S3-FO      -7.5   -11.7   -17.5

51  S4-FO      11.8    20.3    28.8
52  S5-FO       1.4     1.6     1.9
56  R16-B      -4.3    -8.0   -11.9
60  S1-FO       -.3     -.5    -2.3
61  S2-FO      -3.8    -6.4    -9.2

SEP-06-89    16:14
```

```
FILE: D-1L-1

READING    TONS      LBS      KG
   #4      3.61      7222     3276
   #5      1.98      3962     1797
   #6      0.00         0        0

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1E-AZ     -29.8    -16.0       .3
 1   2A-AZ       3.2      1.9       .3
 2   3G-AZ        .2       .1      0.0
 3   1A-FY      -6.1     -3.4      -.2
 5   1B-FY      -5.9     -3.2       .1

 7   1C-FY       1.7       .8      -.1
10   R11-A       1.2       .5      -.5
11   R11-C       -.4      -.3      -.2
12   R08-A        .4       .1      -.6
14   R08-C       1.0       .5      -.2

15   R06-A        .4       .1      -.2
16   R19-A        .4       .1      -.5
17   R19-B        .5       .1      -.5
18   R19-C       -.4      -.4      -.5
19   R20-A        .2      -.1      -.5

21   R20-B       -.6      -.5      -.4
22   R20-C        .4       .1      -.3
24   1D-FY      28.4     15.6      -.7
25   R14-C        .1      -.1      -.2
27   R07-C       -.8      -.5      -.2

28   R03-C       -.7      -.5      -.4
29   R13-A       -.6      -.4      -.3
30   R13-C        .3       .1      -.4
32   R06-C       -.5      -.4      0.0
33   R04-A        .2       .1      -.2

34   R04-C       1.8      1.4      -.4
36   R10-B       1.4       .9      -.1
37   6F-AZ        .4       .2       .1
39   6B-AZ       -.9      -.6       .1
42   6C-AZ       -.7      -.2      0.0

43   6D-AZ       1.0       .9       .1
44   6E-AZ        .7       .3      0.0
47   R10-C      -2.3     -1.9      0.0
48   6G-AZ       1.1       .2      -.1
50   S3-FI      -1.3      -.4       .2

51   S4-FI      -2.3      -.4      -.1
52   S5-FI      -2.1     -1.8      0.0
56   R15-C      -5.3     -4.3      -.9
58   R01-A        .1       .1      -.1
60   S1-FI      -7.6     -3.9      0.0

61   S2-FI      -4.0     -3.4      0.0

SEP-07-89    12:42
```

```
FILE: D-1L-1

READING    TONS      LBS      KG
   #1      1.86      3719     1687
   #2      3.60      7205     3268
   #3      4.95      9907     4494

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1E-AZ     -15.8    -30.2    -41.9
 1   2A-AZ       1.8      3.3      4.4
 2   3G-AZ       0.0       .1       .2
 3   1A-FY      -3.2     -6.0     -8.2
 5   1B-FY      -3.0     -5.9     -8.2

 7   1C-FY        .9      1.7      2.4
10   R11-A        .6      1.3      1.9
11   R11-C       -.1      -.3      -.3
12   R08-A        .1       .4       .5
14   R08-C        .6      1.1      1.5

15   R06-A        .2       .4       .6
16   R19-A        .3       .5       .7
17   R19-B        .4       .7       .9
18   R19-C       -.1      -.3      -.5
19   R20-A        .2       .4       .5

21   R20-B       -.4      -.5      -.8
22   R20-C        .2       .5       .7
24   1D-FY      14.8     28.6     39.7
25   R14-C        .1       .2       .2
27   R07-C       -.4      -.7      -.9

28   R03-C       -.4      -.7      -.9
29   R13-A       -.4      -.6      -.9
30   R13-C        .1       .4       .6
32   R06-C       -.4      -.4      -.8
33   R04-A        .2       .2       .8

34   R04-C       1.4      1.8      1.9
36   R10-B        .9      1.4      3.0
37   6F-AZ        .2      1.2      2.1
39   6B-AZ       -.6      -.8     -1.2
42   6C-AZ       -.2      -.7     -2.3

43   6D-AZ        .8      1.0      1.0
44   6E-AZ        .4       .7      2.2
47   R10-C      -1.9     -2.3     -3.2
48   6G-AZ        .2      1.2      1.5
50   S3-FI       -.4     -1.3     -1.5

51   S4-FI       -.2     -2.3     -2.6
52   S5-FI      -1.8     -2.1     -3.1
56   R15-C      -3.3     -5.0     -8.2
58   R01-A        .1       .1       .1
60   S1-FI      -3.7     -7.5    -10.1

61   S2-FI      -2.7     -4.0     -6.4

SEP-07-89    12:42
```

```
FILE: D-2L-1

READING    TONS       LBS      KG
   #4      3.37      6748    3061
   #5      2.02      4046    1835
   #6      -.00        -6      -3

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1E-AZ       5.6     3.5      .5
 1  2A-AZ       8.2     5.0      .5
 2  3G-AZ       3.7     2.3      .2
 3  1A-FY       -.4     -.2     -.2
 5  1B-FY        .6      .4      .1

 7  1C-FY      -2.7    -1.6     -.3
10  R11-A      11.2     6.8      .2
11  R11-C     -26.9   -16.0      .2
12  R08-A        .7      .3     -.5
14  R08-C        .1     0.0     -.2

15  R06-A        .2      .1     -.2
16  R19-A        .6      .2     -.3
17  R19-B        .9      .4     -.5
18  R19-C       -.7     -.6     -.4
19  R20-A        .6      .3     -.1

21  R20-B       -.6     -.4     -.1
22  R20-C        .6      .3     -.2
24  1D-FY       2.2     1.3     -.1
25  R14-C       -.5     -.3      .1
27  R07-C       -.2     -.2     -.2

28  R03-C       2.8     1.7      .1
29  R13-A      -3.8    -2.3     -.2
30  R13-C      -5.2    -3.2     -.5
32  R06-C       -.2     -.1      .1
33  R04-A        .4      .2     0.0

34  R04-C      -5.0    -3.6     0.0
36  R10-B       3.2     1.2     0.0
37  6F-AZ       2.4     2.2      .6
39  6B-AZ      -1.0     -.4     0.0
42  6C-AZ      -2.0     -.4     0.0

43  6D-AZ       1.2      .8      .1
44  6E-AZ        .6      .3     0.0
47  R10-C      -2.9    -2.1      .1
48  6G-AZ       1.4      .6     -.1
50  S3-FI      -4.2    -1.7     0.0

51  S4-FI      -3.2    -2.2     0.0
52  S5-FI      -2.6    -1.7      .5
56  R15-C      -9.8    -5.6     0.0
58  R01-A       1.3     1.1      .1
60  S1-FI       4.2     3.4     -.1

61  S2-FI      -8.2    -5.9     0.0

SEP-07-89  12:28    PULLED FROM
UPPER PADEYE #3
```

```
FILE: D-2L-1

READING    TONS       LBS      KG
   #1      1.98      3962    1797
   #2      3.44      6872    3117
   #3      5.04     10088    4576

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1E-AZ       3.1     5.5     8.0
 1  2A-AZ       4.8     8.2    11.8
 2  3G-AZ       2.2     3.7     5.4
 3  1A-FY       -.2     -.4     -.4
 5  1B-FY        .4      .5      .9

 7  1C-FY      -1.5    -2.6    -3.8
10  R11-A       6.4    11.1    16.1
11  R11-C     -15.9   -27.2   -39.4
12  R08-A        .6      .8      .9
14  R08-C        .2      .2      .3

15  R06-A        .2      .3      .4
16  R19-A        .4      .7     1.0
17  R19-B        .6     1.0     1.6
18  R19-C       -.3     -.6     -.8
19  R20-A        .4      .6      .9

21  R20-B       -.3     -.6     -.9
22  R20-C        .5      .8     1.1
24  1D-FY       1.3     2.3     3.2
25  R14-C       -.3     -.5     -.6
27  R07-C       -.1     -.2     -.3

28  R03-C       1.7     2.8     4.0
29  R13-A      -2.3    -3.9    -5.7
30  R13-C      -2.9    -5.0    -7.3
32  R06-C       -.1     -.2     -.2
33  R04-A        .2      .4      .7

34  R04-C      -3.5    -5.0    -8.2
36  R10-B       1.2     3.2     3.4
37  6F-AZ        .4     2.2     2.5
39  6B-AZ       -.5    -1.2    -3.2
42  6C-AZ       -.6    -2.2    -3.6

43  6D-AZ        .7     1.2     1.2
44  6E-AZ        .3      .7     2.3
47  R10-C      -2.0    -2.5    -3.4
48  6G-AZ        .7     1.4     2.7
50  S3-FI      -1.6    -4.2    -5.6

51  S4-FI      -2.3    -3.5    -4.1
52  S5-FI      -1.7    -2.7    -3.1
56  R15-C      -5.2    -9.9   -14.0
58  R01-A       1.1     1.3     1.5
60  S1-FI       3.4     4.7     7.6

61  S2-FI      -5.8    -8.2   -13.2

SEP-07-89  12:28    PULLED FROM
UPPER PADEYE #3
```

```
FILE: D-3L-1

READING    TONS      LBS      KG
   #4      3.35     6702    3040
   #5      2.01     4029    1828
   #6       .01       28      13

CH  GAUGE      #4 uS   #5 uS   #6 uS

 0  1E-AZ        1.7     1.1      .4
 1  2A-AZ        3.5     2.3      .5
 2  3G-AZ       44.0    26.8     0.0
 3  1A-FY         .6      .2     -.5
 5  1B-FY        1.8     1.2      .2

 7  1C-FY       -1.8    -1.2     -.6
10  R11-A         .4      .2     -.2
11  R11-C       -8.5    -5.1      .2
12  R08-A        1.8     1.1     -.1
14  R08-C        1.7      .9     -.5

15  R06-A       -2.0    -1.3     -.2
16  R19-A        1.1      .5     -.4
17  R19-B        2.1     1.2     -.1
18  R19-C        -.7     -.4     -.1
19  R20-A         .9      .5     -.3

21  R20-B       -1.2     -.8     -.1
22  R20-C        1.2      .6     -.5
24  1D-FY       -1.7    -1.2     -.2
25  R14-C        3.5     2.2     -.1
27  R07-C         .9      .5     -.2

28  R03-C       18.4    11.0     -.1
29  R13-A        -.5     -.2      .1
30  R13-C        -.2     -.2     -.1
32  R06-C        5.1     3.5     -.1
33  R04-A        9.7     6.1     -.1

34  R04-C      -26.7   -16.5      .7
36  R10-B         .6      .5     0.0
37  6F-AZ        -.4    -1.2    -1.7
39  6B-AZ       -3.9    -2.7     -.1
42  6C-AZ       -3.5     -.7      .2

43  6D-AZ        1.5     1.2      .1
44  6E-AZ        2.7      .9      .3
47  R10-C       -1.8    -1.6      .3
48  6G-AZ        2.9     1.5      .1
50  S3-FI       -9.5    -6.2      .1

51  S4-FI       -4.5    -3.5      .1
52  S5-FI       -2.4    -2.0     -.5
56  R15-C       11.2     6.0    -1.8
58  R01-A        5.6     2.3     -.2
60  S1-FI        5.5     2.8    -1.2

61  S2-FI        3.9     1.8     0.0

SEP-07-89    11:39
```

```
FILE: D-3L-1

READING    TONS      LBS      KG
   #1      1.89     3781    1715
   #2      3.53     7064    3204
   #3      5.01    10025    4548

CH  GAUGE      #1 uS   #2 uS   #3 uS

 0  1E-AZ         .9     1.7     2.4
 1  2A-AZ        2.0     3.5     5.0
 2  3G-AZ       24.5    46.1    64.6
 3  1A-FY         .4      .8     1.0
 5  1B-FY        1.0     1.8     2.6

 7  1C-FY       -1.0    -1.8    -2.6
10  R11-A         .2      .3      .5
11  R11-C       -4.9    -9.1   -12.8
12  R08-A        1.1     1.9     2.7
14  R08-C        1.0     1.9     2.6

15  R06-A       -1.1    -2.2    -3.0
16  R19-A         .6     1.2     1.6
17  R19-B        1.2     2.1     3.0
18  R19-C        -.3     -.8    -1.0
19  R20-A         .5     1.0     1.3

21  R20-B        -.6    -1.2    -1.8
22  R20-C         .8     1.3     2.0
24  1D-FY        -.9    -1.8    -2.6
25  R14-C        2.0     3.6     5.3
27  R07-C         .4      .9     1.4

28  R03-C       10.0    19.4    27.8
29  R13-A        -.4     -.6     -.8
30  R13-C        -.1     -.2     -.2
32  R06-C        3.5     5.5     7.5
33  R04-A        4.5    10.1    13.8

34  R04-C      -16.1   -28.4   -40.4
36  R10-B         .4      .6     2.3
37  6F-AZ         .2      .9     1.6
39  6B-AZ       -2.4    -3.9    -6.1
42  6C-AZ       -1.7    -3.7    -4.1

43  6D-AZ        1.0     1.5     3.4
44  6E-AZ         .7     2.6     3.0
47  R10-C       -1.6    -1.9    -2.6
48  6G-AZ        1.2     3.1     3.7
50  S3-FI       -5.9   -10.1   -13.9

51  S4-FI       -3.4    -5.0    -7.8
52  S5-FI       -1.9    -2.4    -3.7
56  R15-C        6.8    11.5    16.6
58  R01-A        2.2     6.6     8.3
60  S1-FI        2.8     6.3     9.3

61  S2-FI        1.7     4.1     7.3

SEP-07-89    11:39
```

```
FILE: D-4L-1

READING   TONS       LBS       KG
   #4     3.37      6742     3058
   #5     2.05      4092     1856
   #6     -.01       -17       -8

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1E-AZ        .9      .6      .1
 1  2A-AZ       2.2     1.7      .9
 2  3G-AZ       7.9     4.9      .4
 3  1A-FY        .2      .2     -.2
 5  1B-FY       1.0      .6      .1

 7  1C-FY      -1.2     -.4      .3
10  R11-A       -.5      .1      .6
11  R11-C       -.1     -.1      .2
12  R08-A       8.2     1.2    -4.3
14  R08-C      51.1    30.7     -.2

15  R06-A       -.1     -.1     -.3
16  R19-A       1.4      .9      .5
17  R19-B       2.8     1.6      .1
18  R19-C      -1.2     -.5      .5
19  R20-A       1.0      .7      .5

21  R20-B      -1.9    -1.2      .2
22  R20-C       2.0     1.1      .1
24  1D-FY       -.5      .3     1.3
25  R14-C      20.0    11.9      .4
27  R07-C     -27.6   -16.5      .5

28  R03-C       -.1      .2      .4
29  R13-A       -.1     -.2     -.4
30  R13-C        .9      .6      .2
32  R06-C        .1     -.3     -.8
33  R04-A        .8      .4      .3

34  R04-C       2.7     2.2      .1
36  R10-B      -7.9    -4.2      .2
37  6F-AZ       3.1     3.5     3.7
39  6B-AZ      -6.1    -3.4      .2
42  6C-AZ      -4.3    -1.9     1.7

43  6D-AZ       1.7      .7      .2
44  6E-AZ       3.6     1.2      .1
47  R10-C       3.9     1.4    -1.5
48  6G-AZ       1.7      .7      .3
50  S3-FI       2.1      .7      .1

51  S4-FI      -3.9    -2.7     0.0
52  S5-FI      -2.0    -1.4      .1
56  R15-C       4.7     2.6     -.4
58  R01-A        .7      .8      .8
60  S1-FI       2.0     1.4      .2

61  S2-FI       2.4     1.8      .2

SEP-07-89   11:25
```

```
FILE: D-4L-1

READING   TONS       LBS       KG
   #1     2.16      4312     1956
   #2     3.68      7369     3343
   #3     4.95      9901     4491

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1E-AZ        .4      .7     1.1
 1  2A-AZ       1.3     2.1     2.9
 2  3G-AZ       4.8     8.3    11.3
 3  1A-FY        .1      .3      .5
 5  1B-FY        .7     1.2     1.5

 7  1C-FY       -.9    -1.4    -1.8
10  R11-A       -.4     -.8    -1.0
11  R11-C       -.1     -.2     -.2
12  R08-A       5.6     9.6    12.9
14  R08-C      31.7    54.8    73.5

15  R06-A       0.0      .1      .1
16  R19-A        .8     1.4     1.9
17  R19-B       1.7     3.0     4.1
18  R19-C       -.9    -1.5    -1.9
19  R20-A        .6     1.1     1.4

21  R20-B      -1.2    -2.1    -2.8
22  R20-C       1.4     2.5     3.3
24  1D-FY       -.4     -.7     -.9
25  R14-C      12.6    21.9    29.4
27  R07-C     -17.1   -29.7   -39.9

28  R03-C       -.2     -.4     -.4
29  R13-A       -.1     0.0     0.0
30  R13-C        .4      .7     1.0
32  R06-C       0.0     -.1     -.1
33  R04-A        .3      .8     1.1

34  R04-C       2.2     3.2     4.0
36  R10-B      -4.2    -8.0   -11.5
37  6F-AZ       1.5     3.4     3.8
39  6B-AZ      -3.6    -6.9    -7.7
42  6C-AZ      -1.9    -4.3    -5.4

43  6D-AZ        .7     2.1     4.1
44  6E-AZ       1.6     3.6     4.1
47  R10-C       1.9     4.0     5.1
48  6G-AZ       1.0     2.3     4.1
50  S3-FI        .9     2.1     4.2

51  S4-FI      -3.4    -4.1    -6.2
52  S5-FI      -1.7    -2.2    -4.2
56  R15-C       2.6     5.6     6.3
58  R01-A       0.0      .2      .4
60  S1-FI        .8     1.5     2.8

61  S2-FI       1.5     2.4     4.4

SEP-07-89   11:25
```

```
FILE: D-5L-1

READING     TONS        LBS       KG
    #1      1.98       3950     1792
    #2      3.36       6714     3045
    #3      4.91       9816     4453

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   1E-AZ        .5       .7      1.0
 1   2A-AZ        .8      1.4      1.7
 2   3G-AZ       -.3      -.7     -1.0
 3   1A-FY        .2       .2       .4
 5   1B-FY        .5       .9      1.3

 7   1C-FY       -.6     -1.2     -1.6
10   R11-A       -.2      -.3      -.5
11   R11-C       -.5      -.9     -1.2
12   R08-A       -.1      -.4      -.7
14   R08-C       5.7      9.6     13.9

15   R06-A        .3       .5       .6
16   R19-A        .9      1.6      2.3
17   R19-B       2.8      4.9      7.1
18   R19-C       -.3      -.8     -1.2
19   R20-A        .4       .6       .8

21   R20-B      -2.4     -4.1     -5.9
22   R20-C        .3       .4       .3
24   1D-FY       -.2      -.2      -.5
25   R14-C      -1.4     -2.5     -3.6
27   R07-C      -5.4     -9.4    -13.6

28   R03-C       -.7     -1.4     -1.9
29   R13-A        .1       .1       .2
30   R13-C        .2       .4       .5
32   R06-C       -.4      -.3      -.2
33   R04-A       0.0      0.0      0.0

34   R04-C        .5      1.4      1.9
36   R10-B        .4       .5      1.4
37   6F-AZ        .8      2.5      2.8
39   6B-AZ      -3.6     -4.6     -7.7
42   6C-AZ      -3.9     -5.9     -9.5

43   6D-AZ       1.2      1.5      2.8
44   6E-AZ        .4       .5       .7
47   R10-C       -.3      -.9     -1.1
48   6G-AZ       3.0      5.9      6.9
50   S3-FI       5.1      6.5      9.7

51   S4-FI       1.9      3.7      4.8
52   S5-FI      -5.7     -9.6    -13.7
56   R15-C       2.5      5.2      6.6
58   R01-A       -.1      -.2      -.3
60   S1-FI        .1      1.1      3.4

61   S2-FI       3.3      3.7      5.2

SEP-07-89    10:10
```

```
FILE: D-5L-1

READING     TONS        LBS       KG
    #4      3.51       7013     3181
    #5      2.06       4114     1866
    #6      -.01        -17       -8

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   1E-AZ        .7       .4       .1
 1   2A-AZ       1.0       .1      -.8
 2   3G-AZ       -.8      -.4      -.3
 3   1A-FY        .2       .1      -.1
 5   1B-FY       1.0       .8       .4

 7   1C-FY      -1.3     -1.0      -.4
10   R11-A       -.5      -.4      -.2
11   R11-C       -.8      -.5       .1
12   R08-A       -.5      -.3       .1
14   R08-C       9.8      5.5      -.8

15   R06-A        .5       .2      -.1
16   R19-A       1.5       .7      -.4
17   R19-B       5.1      2.9       .1
18   R19-C      -1.0      -.8      -.3
19   R20-A        .5       .2      -.3

21   R20-B      -4.4     -2.7      -.5
22   R20-C        .1       .1      -.3
24   1D-FY       -.2       .1       .5
25   R14-C      -2.8     -1.6      -.1
27   R07-C      -9.7     -5.7       .1

28   R03-C      -1.5     -1.0      -.2
29   R13-A        .2       .3       .3
30   R13-C        .4       .5       .5
32   R06-C        .2       .4       .6
33   R04-A       0.0      0.0      -.1

34   R04-C       1.4       .4      -.1
36   R10-B        .5       .4      0.0
37   6F-AZ        .9      0.0     -1.2
39   6B-AZ      -5.0     -3.7      -.1
42   6C-AZ      -6.1     -4.3      -.1

43   6D-AZ       1.6      1.0      -.1
44   6E-AZ        .6       .4       .2
47   R10-C       -.9      -.3      0.0
48   6G-AZ       6.2      3.1       .3
50   S3-FI       6.4      4.2      -.2

51   S4-FI       3.7      2.7       .1
52   S5-FI      -9.9     -5.9      -.4
56   R15-C       5.2      2.0      -.8
58   R01-A       -.2      -.1       .1
60   S1-FI       1.7       .1      -.6

61   S2-FI       3.7      3.2      0.0

SEP-07-89    10:10
```

```
FILE: D-6L-1

READING     TONS         LBS         KG
   #4       3.28        6567       2979
   #5       1.91        3826       1735
   #6       0.00           0          0

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   1E-AZ         .4       .4       .4
 1   2A-AZ        1.1       .2      -.5
 2   3G-AZ         .8       .8       .7
 3   1A-FY         .4       .5       .5
 5   1B-FY         .2       .1      -.1

 7   1C-FY         .2       .7      1.2
10   R11-A         .1       .1       .2
11   R11-C        -.6      -.5      -.4
12   R08-A       -4.7     -4.6     -4.5
14   R08-C        1.0       .8       .5

15   R06-A         .2       .2       .3
16   R19-A       -8.0     -4.8       .2
17   R19-B        2.2      1.2       .3
18   R19-C        2.1      1.2       .4
19   R20-A        -.8      -.2       .4

21   R20-B       10.7      6.4      6.0
22   R20-C        9.0      5.7       .5
24   1D-FY        0.0       .1      -.3
25   R14-C        -.4      0.0        4
27   R07-C        -.8      -.4       .1

28   R03-C        0.0       .3       .5
29   R13-A        0.0       .1       .4
30   R13-C         .4       .4       .5
32   R06-C        1.8      2.1      2.0
33   R04-A         .2       .2       .2

34   R04-C         .4       .4       .3
36   R10-B        1.3       .9       .4
37   6F-AZ       18.8     13.4      3.5
39   6B-AZ       -1.0      0.0       .4
42   6C-AZ       -4.2     -2.8       .3

43   6D-AZ       -9.4     -5.5      1.9
44   6E-AZ       -5.4     -3.6       .4
47   R10-C        -.9      -.8      -.1
48   6G-AZ       23.4     15.0       .2
50   S3-FI        1.8       .2      -.1

51   S4-FI        3.4      1.5       .1
52   S5-FI        3.3      2.8       .6
56   R15-C        1.5       .3      -.4
58   R01-A        -.1      -.1      -.1
60   S1-FI        2.0      1.9      1.8

61   S2-FI        1.5       .5       .1

SEP-07-89    09:57
```

```
FILE: D-6L-1

READING     TONS         LBS         KG
   #1       2.19        4374       1984
   #2       3.71        7426       3368
   #3       5.11       10223       4637

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   1E-AZ         .2       .3       .4
 1   2A-AZ         .6      1.0      1.6
 2   3G-AZ         .3       .5       .8
 3   1A-FY         .1       .2       .2
 5   1B-FY         .3        4       .4

 7   1C-FY        -.2      -.2      -.2
10   R11-A        -.1      -.1      0.0
11   R11-C        -.2      -.4      -.6
12   R08-A        -.2      -.9     -4.8
14   R08-C         .5       .9      1.3

15   R06-A         .1       .1       .2
16   R19-A       -5.3     -9.0    -11.9
17   R19-B        1.5      2.7      4.0
18   R19-C        1.3      2.5      3.7
19   R20-A        -.6     -1.2     -1.9

21   R20-B        7.1     11.7     15.8
22   R20-C        6.0      9.6     12.8
24   1D-FY        -.1      -.3      -.3
25   R14-C        -.3      -.6      -.8
27   R07-C        -.5      -.9     -1.2

28   R03-C        -.2      -.2      -.4
29   R13-A        -.1      -.1      -.1
30   R13-C        0.0      0.0       .2
32   R06-C        -.1       .3       .3
33   R04-A        0.0      -.1       .1

34   R04-C         .4       .4       .5
36   R10-B         .9      1.3      2.9
37   6F-AZ       11.4     20.5     28.5
39   6B-AZ        -.8     -1.2     -1.3
42   6C-AZ       -3.7     -5.8     -7.8

43   6D-AZ       -6.0    -11.9    -16.7
44   6E-AZ       -4.3     -7.3    -10.9
47   R10-C        -.8      -.9     -1.1
48   6G-AZ       15.6     27.1     36.3
50   S3-FI         .7      1.5      2.3

51   S4-FI        1.4      3.5      3.9
52   S5-FI        2.8      3.7      4.8
56   R15-C         .5      1.5      3.5
58   R01-A        -.1      -.2      -.2
60   S1-FI        1.8      1.9      2.2

61   S2-FI         .4      1.9      3.2

SEP-07-89    09:57
```

```
FILE: D-1U-1

READING     TONS         LBS        KG
    #4      3.35        6702      3040
    #5      1.92        3832      1738
    #6       .00           6         3

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   1E-AZ       -1.2      -.6      0.0
 1   2A-AZ       -1.7     -1.0      -.1
 2   3G-AZ         .3       .4       .8
 3   1A-FY       25.9     15.1       .1
 5   1B-FY        9.9      5.6      0.0

 7   1C-FY       13.5      8.0       .9
10   R11-A        -.4      -.2       .5
11   R11-C        -.8      -.6      -.2
12   R08-A        0.0     -2.6     -2.6
14   R08-C         .4       .5       .5

15   R06-A         .1       .1      0.0
16   R19-A         .1      0.0      0.0
17   R19-B         .3      -.1      -.5
18   R19-C        -.5      -.2       .1
19   R20-A        -.1      -.2      0.0

21   R20-B        -.6      -.5       .1
22   R20-C         .1      -.2      -.2
24   1D-FY         .4       .3       .5
25   R14-C        -.3      -.2       .3
27   R07-C        -.5      -.5      -.1

28   R03-C        -.2       .1       .4
29   R13-A         .1      -.2      -.3
30   R13-C        2.0      1.2       .3
32   R06-C        -.5      -.2      -.1
33   R04-A         .2       .2       .4

34   R04-C        1.2       .8      1.1
36   R10-B         .9       .1      -.1
37   6F-AZ        1.7      2.0      2.5
39   6B-AZ       -1.0      -.4      0.0
42   6C-AZ        -.2      -.2       .7

43   6D-AZ         .4       .2       .4
44   6E-AZ         .2      -.3      -.3
47   R10-C       -1.9     -1.8      -.2
48   6G-AZ         .1      -.2      -.4
50   S3-FI        -.6      -.3       .1

51   S4-FI        -.4      -.3      0.0
52   S5-FI       -1.9      -.2       .1
56   R15-C       -3.2     -3.6      -.1
58   R01-A        -.2      -.1       .5
60   S1-FI       -2.0      -.1       .2

61   S2-FI       -1.7      -.5       .1

SEP-07-89   12:57   LAST D CAL
```

```
FILE: D-1U-1

READING     TONS         LBS        KG
    #1      1.77        3532      1602
    #2      3.35        6697      3038
    #3      4.90        9799      4445

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   1E-AZ        -.7     -1.2     -1.0
 1   2A-AZ        -.7     -1.5     -2.3
 2   3G-AZ         .2       .3       .4
 3   1A-FY       13.4     25.6     37.0
 5   1B-FY        5.7     10.3     14.2

 7   1C-FY        7.2     13.5     19.5
10   R11-A        -.2      -.5      -.6
11   R11-C        -.4      -.8     -1.1
12   R08-A        -.1      -.2      -.1
14   R08-C         .3       .5       .6

15   R06-A         .1       .1       .2
16   R19-A        0.0       .1       .1
17   R19-B         .2       .3       .6
18   R19-C        -.2      -.5      -.6
19   R20-A        0.0      -.1      -.1

21   R20-B        -.3      -.5      -.8
22   R20-C         .1       .2       .4
24   1D-FY         .2       .4       .6
25   R14-C        -.1      -.2      -.4
27   R07-C        -.2      -.5      -.7

28   R03-C        -.1      -.1      -.2
29   R13-A         .1       .2       .3
30   R13-C         .9      1.9      2.7
32   R06-C        -.3      -.5      -.5
33   R04-A         .1       .1       .2

34   R04-C         .4      1.1      1.5
36   R10-B         .4       .8      1.0
37   6F-AZ         .2      1.7      1.9
39   6B-AZ        -.4     -1.0     -1.2
42   6C-AZ        -.2      -.2      -.3

43   6D-AZ         .3       .4       .4
44   6E-AZ         .1       .2       .5
47   R10-C        -.2     -1.8     -2.0
48   6G-AZ         .1       .4       .7
50   S3-FI        -.4      -.5     -1.5

51   S4-FI        -.2      -.3      -.6
52   S5-FI        -.3     -1.9     -2.0
56   R15-C       -1.9     -3.2     -3.4
58   R01-A        0.0      -.2      -.5
60   S1-FI        -.1     -1.9     -2.1

61   S2-FI        -.4     -1.4     -2.9

SEP-07-89   12:57   LAST D CAL
```

```
FILE: D-2U-1

READING    TONS       LBS      KG
    #4     3.49      6985    3168
    #5     2.00      3995    1812
    #6     0.00         0       0

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   1E-AZ        1.3      .9      .3
 1   2A-AZ       -4.4    -2.5      .4
 2   3G-AZ         .3      .1     0.0
 3   1A-FY        3.0     1.7     -.3
 5   1B-FY        3.0     1.7     0.0

 7   1C-FY        4.9     2.9     -.2
10   R11-A       -1.2     -.8     -.2
11   R11-C        -.2     -.1      .1
12   R08-A        -.1     -.1     -.2
14   R08-C         .9      .4     -.3

15   R06-A         .8      .5     -.1
16   R19-A         .1     -.1     -.4
17   R19-B        1.0      .4     -.4
18   R19-C       -1.1     -.8     -.5
19   R20-A         .1     -.1     -.4

21   R20-B       -1.2     -.9     -.3
22   R20-C         .9      .3     -.2
24   1D-FY       -1.3     -.9     -.1
25   R14-C        -.6     -.5     -.1
27   R07-C       -1.1     -.7     -.2

28   R03-C        -.4     -.3     -.1
29   R13-A        9.9     5.7     -.6
30   R13-C       13.3     7.5     -.7
32   R06-C       -4.0    -2.4     -.1
33   R04-A         .2      .1     0.0

34   R04-C        2.1     1.5     -.2
36   R10-B         .7      .3     -.8
37   6F-AZ        1.8      .4     0.0
39   6B-AZ        -.9     -.3     0.0
42   6C-AZ       -1.7     -.4     0.0

43   6D-AZ         .9      .2     -.1
44   6E-AZ         .7      .2     -.2
47   R10-C       -2.3    -1.9     -.1
48   6G-AZ         .9      .1     -.1
50   S3-FI       -1.9    -1.5     0.0

51   S4-FI       -2.4    -2.0     0.0
52   S5-FI       -1.6     -.7     -.1
56   R15-C       -3.7     -.8     1.3
58   R01-A        -.8     -.6     0.0
60   S1-FI        2.8     1.0     0.0

61   S2-FI       -2.9     -.9     -.1

SEP-07-89  12:07  PULLED FROM
UPPER PADEYE #3
```

```
FILE: D-2U-1

READING    TONS       LBS      KG
    #1     1.90      3803    1725
    #2     3.51      7019    3184
    #3     4.94      9873    4478

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   1E-AZ         .7     1.2     1.7
 1   2A-AZ       -2.6    -4.6    -6.2
 2   3G-AZ         .1      .2      .3
 3   1A-FY        1.6     3.0     4.2
 5   1B-FY        1.5     2.9     4.0

 7   1C-FY        2.6     4.8     6.6
10   R11-A        -.6    -1.1    -1.6
11   R11-C        -.2     -.3     -.4
12   R08-A         .1     -.1     -.1
14   R08-C         .5      .9     1.3

15   R06-A         .4      .8     1.1
16   R19-A         .2      .2      .4
17   R19-B         .6     1.1     1.5
18   R19-C        -.5     -.9    -1.4
19   R20-A         .1      .2      .2

21   R20-B        -.6    -1.2    -1.7
22   R20-C         .6     1.0     1.4
24   1D-FY        -.7    -1.3    -1.8
25   R14-C        -.3     -.5     -.8
27   R07-C        -.6    -1.0    -1.4

28   R03-C        -.2     -.4     -.5
29   R13-A        5.5    10.0    13.5
30   R13-C        7.5    13.6    18.0
32   R06-C       -2.1    -4.0    -6.3
33   R04-A         .1      .2      .2

34   R04-C        1.4     2.0     2.3
36   R10-B         .4      .6     2.4
37   6F-AZ         .4     1.0     2.3
39   6B-AZ        -.2     -.7    -2.1
42   6C-AZ        -.4    -1.3    -2.4

43   6D-AZ         .2      .9     1.2
44   6E-AZ         .2      .7     2.3
47   R10-C       -1.8    -2.3    -2.6
48   6G-AZ         .2     1.0     1.5
50   S3-FI       -1.4    -1.8    -3.4

51   S4-FI       -1.9    -2.4    -3.5
52   S5-FI        -.7    -1.7    -1.9
56   R15-C       -1.3    -3.9    -6.0
58   R01-A        -.6     -.7     -.9
60   S1-FI        1.1     2.6     3.6

61   S2-FI        -.6    -2.7    -3.7

SEP-07-89  12:07  PULLED FROM
UPPER PADEYE #3
```

```
FILE: D-3U-1

READING     TONS         LBS        KG
    #4      3.50        7008      3179
    #5      2.01        4024      1825
    #6      -.03         -68       -31

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   1E-AZ        1.7      1.0      -.1
 1   2A-AZ        2.1      1.4       .5
 2   3G-AZ       -1.7     -1.1      -.2
 3   1A-FY         .5       .2      -.4
 5   1B-FY        1.0      1.0       .1

 7   1C-FY       -1.9     -1.2      -.1
10   R11-A        -.6      -.5      -.3
11   R11-C       -1.6     -1.1      -.2
12   R08-A        -.3      -.2      -.3
14   R08-C        1.4       .7      -.1

15   R06-A        5.7      3.1      -.4
16   R19-A        0.0      -.3      -.8
17   R19-B        2.0       .9      -.6
18   R19-C       -2.1     -1.5      -.6
19   R20-A        -.1      -.4      -.8

21   R20-B       -2.1     -1.4      -.4
22   R20-C        1.6       .8      -.5
24   1D-FY       -1.8     -1.2      -.3
25   R14-C       -1.1      -.7      -.3
27   R07-C       -1.6     -1.1      -.3

28   R03-C        1.2       .6      -.2
29   R13-A         .1      -.1      -.5
30   R13-C         .2       .1      -.1
32   R06-C      -15.6     -9.0       .1
33   R04-A       -1.8      -.2      -.2

34   R04-C        -.4      -.3       .5
36   R10-B        2.5       .7      -.8
37   6F-AZ        1.2       .2      -.2
39   6B-AZ       -3.5     -1.5      0.0
42   6C-AZ       -3.5     -1.8      0.0

43   6D-AZ        1.5      1.0      0.0
44   6E-AZ        2.6       .6      -.2
47   R10-C       -6.3     -3.6      -.1
48   6G-AZ        3.0      1.2      -.2
50   S3-FI       -5.2     -2.1      -.1

51   S4-FI       -4.8     -3.5      0.0
52   S5-FI       -2.2     -1.7       .2
56   R15-C        3.5      1.2      -.1
58   R01-A       -1.9     -1.8      -.6
60   S1-FI        7.6      3.9      -.2

61   S2-FI        5.7      3.6      -.1

SEP-07-89   11:56
```

```
FILE: D-3U-1

READING     TONS         LBS        KG
    #1      1.98        3962      1797
    #2      3.60        7205      3268
    #3      4.95        9901      4491

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   1E-AZ         .9      1.7      2.3
 1   2A-AZ        1.1      2.0      2.8
 2   3G-AZ        -.9     -1.6     -2.2
 3   1A-FY         .3       .7       .9
 5   1B-FY        1.0      1.8      2.4

 7   1C-FY       -1.2     -2.0     -2.8
10   R11-A        -.2      -.5      -.6
11   R11-C       -1.0     -1.6     -2.3
12   R08-A        -.2      -.2      -.2
14   R08-C         .8      1.5      1.9

15   R06-A        3.4      6.0      8.3
16   R19-A         .1       .2       .4
17   R19-B        1.1      2.1      3.0
18   R19-C       -1.2     -2.0     -2.7
19   R20-A         .1       .2       .3

21   R20-B       -1.1     -2.1     -2.8
22   R20-C         .9      1.8      2.5
24   1D-FY       -1.0     -1.8     -2.4
25   R14-C        -.6     -1.1     -1.5
27   R07-C        -.9     -1.6     -2.2

28   R03-C         .6      1.1      1.5
29   R13-A         .1       .1       .2
30   R13-C        0.0      -.1       .1
32   R06-C       -8.4    -15.8    -22.7
33   R04-A        -.2     -1.4     -1.9

34   R04-C        -.2      -.4      -.5
36   R10-B        1.2      2.5      3.2
37   6F-AZ         .3      1.3      2.9
39   6B-AZ       -1.8     -3.6     -4.0
42   6C-AZ       -1.6     -3.5     -4.0

43   6D-AZ        1.2      1.6      1.8
44   6E-AZ         .7      2.6      2.9
47   R10-C       -3.6     -6.4     -7.7
48   6G-AZ        1.4      3.1      3.6
50   S3-FI       -2.1     -5.2     -7.6

51   S4-FI       -3.5     -5.1     -7.8
52   S5-FI       -1.7     -2.3     -4.2
56   R15-C        1.3      3.7      4.0
58   R01-A       -1.7     -1.9     -2.2
60   S1-FI        3.9      7.6     11.2

61   S2-FI        3.6      6.0      7.8

SEP-07-89   11:56
```

```
FILE: D-4U-1

READING    TONS       LBS      KG
   #4      3.44      6872    3117
   #5      1.99      3979    1805
   #6      -.00        -6      -3

CH  GAUGE   #4 uS   #5 uS   #6 uS

 0  1E-AZ     -.2     -.6     -.7
 1  2A-AZ     2.8     2.3     2.2
 2  3G-AZ     -.1     -.5     -.2
 3  1A-FY     -.2     -.3     -.7
 5  1B-FY      .6      .2     -.4

 7  1C-FY    -1.2     -.7     -.2
10  R11-A    -3.3    -2.9    -1.2
11  R11-C    -2.7    -1.8     -.6
12  R08-A    -4.1    -3.1     -.7
14  R08-C    -1.2    -1.1     -.1

15  R06-A      .1     -.1     -.2
16  R19-A    -2.2    -2.6    -2.2
17  R19-B     2.3      .8     -.8
18  R19-C    -4.3    -3.4    -1.7
19  R20-A    -1.5    -1.8    -1.5

21  R20-B    -3.7    -2.6    -1.0
22  R20-C     2.6     1.4     0.0
24  1D-FY    -2.3    -2.0    -1.5
25  R14-C     -.4     -.8     -.4
27  R07-C    -1.4    -1.1     -.8

28  R03-C    -2.0    -1.7     -.6
29  R13-A     -.5     -.4     -.6
30  R13-C     -.1     -.2     -.8
32  R06-C     1.0     1.0     1.1
33  R04-A    -3.6    -3.6    -3.3

34  R04-C      .4     0.0    -1.8
36  R10-B    37.2    22.4    -1.4
37  6F-AZ     1.5      .2     -.4
39  6B-AZ    -3.4    -2.2     -.2
42  6C-AZ    -5.3    -3.9    -2.1

43  6D-AZ      .5     0.0     -.3
44  6E-AZ     2.1     1.2     -.2
47  R10-C   -23.0   -12.9      .3
48  6G-AZ     2.3     1.9     -.1
50  S3-FI     3.7     2.2     -.1

51  S4-FI    -7.2    -3.4     0.0
52  S5-FI    -8.0    -5.0    -2.5
56  R15-C    10.3     4.7     -.5
58  R01-A    -3.7    -3.4     -.6
60  S1-FI     4.1     1.8     -.1

61  S2-FI     6.7     3.7     -.1

SEP-07-89   10:35
```

```
FILE: D-4U-1

READING    TONS       LBS      KG
   #1      2.11      4210    1910
   #2      3.39      6782    3076
   #3      4.85      9692    4396

CH  GAUGE   #1 uS   #2 uS   #3 uS

 0  1E-AZ      .6     1.0     1.5
 1  2A-AZ     1.1     1.7     2.5
 2  3G-AZ      .3      .6     1.0
 3  1A-FY      .3      .5      .6
 5  1B-FY      .7     1.2     1.7

 7  1C-FY     -.9    -1.3    -1.9
10  R11-A     -.2     -.3     -.1
11  R11-C     -.9    -1.5    -1.9
12  R08-A     -.7     -.9    -1.1
14  R08-C     -.3     -.5     -.5

15  R06-A      .1      .2      .2
16  R19-A      .2      .4      .8
17  R19-B     1.7     2.9     4.5
18  R19-C    -1.6    -2.6    -3.7
19  R20-A      .3      .5      .9

21  R20-B    -1.5    -2.9    -3.5
22  R20-C     1.6     2.6     3.8
24  1D-FY     -.6    -1.0    -1.3
25  R14-C      .6     1.1     1.5
27  R07-C     -.1     -.1     -.2

28  R03-C     -.6     -.9    -1.2
29  R13-A     -.2     -.2     -.4
30  R13-C      .3      .6      .8
32  R06-C      .1     -.1     -.2
33  R04-A      .1      .3      .4

34  R04-C      .5     1.4     1.8
36  R10-B    24.1    38.2    54.5
37  6F-AZ      .6     1.7     2.5
39  6B-AZ    -2.4    -3.8    -4.5
42  6C-AZ    -1.8    -3.9    -5.4

43  6D-AZ     1.1     1.5     3.6
44  6E-AZ     1.4     3.6     4.1
47  R10-C   -14.7   -23.7   -32.6
48  6G-AZ     2.1     3.1     5.4
50  S3-FI     3.0     3.8     4.4

51  S4-FI    -3.6    -5.5    -9.0
52  S5-FI    -4.6    -6.9    -9.9
56  R15-C     6.5    10.3    13.8
58  R01-A     -.2     -.2     -.2
60  S1-FI     3.2     4.2     5.8

61  S2-FI     4.1     6.7    10.3

SEP-07-89   10:35
```

```
FILE: D-5U-1

READING     TONS        LBS      KG
   #1       1.88       3769    1710
   #2       3.59       7177    3256
   #3       4.96       9924    4501

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1E-AZ        .4      .7     1.0
 1   2A-AZ        .8     1.4     1.9
 2   3G-AZ        .4      .8     1.1
 3   1A-FY        .3      .5      .7
 5   1B-FY        .5      .9     1.3

 7   1C-FY       -.4     -.9    -1.2
10   R11-A       -.3     -.6     -.8
11   R11-C       -.6    -1.1    -1.7
12   R08-A       -.3     -.3     -.4
14   R08-C        .6     1.1     1.6

15   R06-A        .1      .2      .2
16   R19-A        .5      .8     1.2
17   R19-B       2.3     4.2     6.0
18   R19-C      -1.9    -3.6    -4.9
19   R20-A        .5      .9     1.3

21   R20-B      -1.8    -3.4    -4.8
22   R20-C       2.1     3.8     5.4
24   1D-FY       -.4     -.7    -1.0
25   R14-C       -.7    -1.4    -1.8
27   R07-C       -.9    -1.5    -2.1

28   R03-C       -.5    -1.1    -1.5
29   R13-A       -.1     -.1     -.1
30   R13-C        .2      .4      .6
32   R06-C       -.2     -.3     -.5
33   R04-A        .1      .1      .2

34   R04-C        .4     1.2     1.6
36   R10-B       5.2     7.5    10.3
37   6F-AZ       1.8     3.9     5.3
39   6B-AZ      -3.6    -5.4    -7.8
42   6C-AZ      -2.3    -5.5    -6.5

43   6D-AZ       1.5     3.9     4.4
44   6E-AZ       1.5     3.9     5.9
47   R10-C       -.1     -.4    -1.0
48   6G-AZ       2.4     4.0     6.2
50   S3-FI       3.5     5.4     8.2

51   S4-FI       2.6     3.2     4.6
52   S5-FI      -5.8   -10.0   -13.6
56   R15-C       3.4     6.5     9.9
58   R01-A       -.1     -.2     -.3
60   S1-FI        .5     2.3     3.9

61   S2-FI       3.4     4.9     7.3

SEP-07-89    10:22
```

```
FILE: D-5U-1

READING     TONS        LBS      KG
   #4       3.42       6844    3104
   #5       1.98       3967    1800
   #6       0.00          0       0

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1E-AZ        .7      .4     0.0
 1   2A-AZ       1.6     1.2      .9
 2   3G-AZ        .8      .5     0.0
 3   1A-FY        .6      .5      .2
 5   1B-FY       1.0      .7      .2

 7   1C-FY       -.6     -.3       4
10   R11-A       -.6     -.5     -.5
11   R11-C      -1.1     -.6     -.1
12   R08-A       -.3     -.2     -.2
14   R08-C       1.2      .6     -.2

15   R06-A        .2      .1      .1
16   R19-A        .7      .2     -.8
17   R19-B       4.1     2.3     -.2
18   R19-C      -3.6    -2.3     -.6
19   R20-A        .6      .3     -.5

21   R20-B      -3.4    -2.1     -.3
22   R20-C       3.7     2.1     -.1
24   1D-FY       -.7     -.3     -.1
25   R14-C      -1.4     -.9     -.4
27   R07-C      -1.4     -.9     -.2

28   R03-C      -1.2     -.6     -.5
29   R13-A       0.0     -.1     0.0
30   R13-C        .5      .2     0.0
32   R06-C       -.3     -.2     0.0
33   R04-A       -.1     -.1     -.4

34   R04-C        .9      .4     -.2
36   R10-B       7.5     5.3     0.0
37   6F-AZ       3.9     1.4     -.1
39   6B-AZ      -4.7    -3.5      .1
42   6C-AZ      -5.4    -2.2     -.2

43   6D-AZ       3.9     1.5     0.0
44   6E-AZ       3.9     1.8     0.0
47   R10-C       -.2     -.1      .2
49   6G-AZ       3.9     2.4     -.1
50   S3-FI       5.0     3.6      .1

51   S4-FI       3.2     2.8      .2
52   S5-FI      -9.1    -5.8      .1
56   R15-C       6.4     3.6     -.1
58   R01-A       -.2     -.2     -.2
60   S1-FI       2.4      .6      .1

61   S2-FI       4.9     3.5      .4

SEP-07-89    10:22
```

```
FILE: D-2S-1

READING   TONS       LBS       KG
   #4     3.35       6691     3035
   #5     1.92       3849     1746
   #6     -.01        -11       -5

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  1E-AZ       1.5      .9      .2
 1  2A-AZ       2.6     1.7      .4
 2  3G-AZ       3.1     1.9      .2
 3  1A-FY        .9      .5     -.2
 5  1B-FY       2.1     1.3      .1

 7  1C-FY      -1.9    -1.2     -.2
10  R11-A       -.6     -.3      .1
11  R11-C      -2.0    -1.2      .1
12  R08-A       1.8      .9     -.3
14  R08-C      11.1     6.5     -.2

15  R06-A        .6      .3     -.2
16  R19-A        .1     -.1     -.2
17  R19-B       -.1     -.2     -.4
18  R19-C       -.2     -.2     -.4
19  R20-A        .2      .1     -.1

21  R20-B       -.4     -.4     -.2
22  R20-C        .1     -.1     -.2
24  1D-FY      -1.3     -.7     0.0
25  R14-C      14.6     8.6     -.2
27  R07-C      -7.0    -4.1     -.1

28  R03-C      -1.0     -.6     0.0
29  R13-A       -.2     -.3     -.5
30  R13-C        .9      .5     -.2
32  R06-C       -.7     -.3     0.0
33  R04-A        .5      .2     0.0

34  R04-C       2.4     2.1     -.1
36  R10-B       -.9     -.5     -.1
37  6F-AZ       0.0     0.0     0.0
39  6B-AZ      -1.5     -.5     -.1
42  6C-AZ      -3.4     -.9      .1

43  6D-AZ        .9      .2     0.0
44  6E-AZ        .1      .1     -.2
47  R10-C        .1     0.0     -.1
48  6G-AZ        .2      .1     -.1
50  S3-FI      -9.8    -5.6      .1

51  S4-FI      -3.0    -2.0      .2
52  S5-FI      -3.4    -2.3      .7
56  R15-C     -39.0   -22.9      .3
58  R01-A       -.3     -.1      .3
60  S1-FI      10.3     5.4     0.0

61  S2-FI      -7.6    -4.1      .1

SEP-07-89  12:18  PULLED FROM
UPPER PADEYE #3
```

```
FILE: D-2S-1

READING   TONS       LBS       KG
   #1     2.05       4103     1861
   #2     3.55       7109     3225
   #3     4.95       9901     4491

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  1E-AZ        .8     1.4     2.1
 1  2A-AZ       1.5     2.6     3.6
 2  3G-AZ       1.8     3.1     4.2
 3  1A-FY        .6     1.0     1.3
 5  1B-FY       1.2     2.1     3.0

 7  1C-FY      -1.2    -1.9    -2.7
10  R11-A       -.4     -.7     -.9
11  R11-C      -1.1    -2.0    -2.7
12  R08-A       1.2     1.9     2.5
14  R08-C       6.8    11.5    15.8

15  R06-A        .5      .7      .9
16  R19-A        .1      .1      .2
17  R19-B        .1      .1      .2
18  R19-C       0.0     -.1     -.1
19  R20-A        .1      .2      .2

21  R20-B       -.2     -.4     -.5
22  R20-C        .1      .1      .2
24  1D-FY       -.9    -1.3    -1.9
25  R14-C       9.0    15.1    20.6
27  R07-C      -4.2    -7.2    -9.8

28  R03-C       -.6    -1.1    -1.5
29  R13-A       0.0     -.1     -.1
30  R13-C        .6     1.1     1.5
32  R06-C       -.3     -.8    -2.1
33  R04-A        .2      .5     1.5

34  R04-C       2.2     2.5     3.1
36  R10-B       -.5     -.9    -1.8
37  6F-AZ       0.0     0.0     0.0
39  6B-AZ       -.4    -1.5    -3.4
42  6C-AZ      -1.0    -3.4    -3.9

43  6D-AZ        .2      .9     1.2
44  6E-AZ        .1      .1      .1
47  R10-C        .1      .1      .1
48  6G-AZ        .1      .2      .3
50  S3-FI      -7.5   -10.6   -15.2

51  S4-FI      -2.3    -3.5    -3.9
52  S5-FI      -2.4    -3.7    -6.1
56  R15-C     -24.7   -40.2   -52.6
58  R01-A       -.3     -.4     -.5
60  S1-FI       5.5    10.4    13.2

61  S2-FI      -5.8    -7.6    -9.1

SEP-07-89  12:18  PULLED FROM
UPPER PADEYE #3
```

```
FILE: D-4S-1

READING    TONS       LBS       KG
   #4      3.60      7194     3263
   #5      2.05      4097     1858
   #6      0.00         0        0

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   1E-AZ       1.5      .9      .1
 1   2A-AZ       3.3     2.5     1.7
 2   3G-AZ       4.0     2.2     -.2
 3   1A-FY        .4     0.0     -.5
 5   1B-FY       1.7     1.0      .1

 7   1C-FY      -2.2    -1.7    -1.0
10   R11-A        .6     1.1     1.6
11   R11-C       -.6     -.1      .8
12   R08-A       3.2     2.5     1.5
14   R08-C      18.2    10.5      .1

15   R06-A       -.4     -.7    -1.2
16   R19-A       1.4      .9      .4
17   R19-B       3.6     2.0     -.2
18   R19-C      -1.9     -.8      .6
19   R20-A       1.1      .7      .2

21   R20-B      -2.8    -1.5      .2
22   R20-C       2.9     1.5     -.4
24   1D-FY       -.6      .1     1.0
25   R14-C      24.5    14.2      .6
27   R07-C     -11.3    -6.1      .9

28   R03-C      -1.8     -.8      .6
29   R13-A      -1.1    -1.2    -1.6
30   R13-C        .6      .2     -.3
32   R06-C      -1.4     -.8     -.4
33   R04-A       2.7     2.5     2.2

34   R04-C       5.8     2.6      .4
36   R10-B      -1.8    -1.4     -.1
37   6F-AZ       3.8     3.2      .7
39   6B-AZ      -6.9    -5.0      .1
42   6C-AZ      -3.8    -2.0      .7

43   6D-AZ       2.7     1.3      .4
44   6E-AZ       3.9     3.1     -.1
47   R10-C        .1      .1     -.2
48   6G-AZ       3.4      .7    -1.6
50   S3-FI       9.7     4.8     -.1

51   S4-FI     -17.8   -10.3     0.0
52   S5-FI      -5.8    -2.5     -.2
56   R15-C       4.6     3.0     -.4
58   R01-A        .4      .6      .7
60   S1-FI       -.1     -.5    -1.1

61   S2-FI       2.4     1.4     0.0

SEP-07-89   11:08
```

```
FILE: D-4S-1

READING    TONS       LBS       KG
   #1      2.03      4058     1841
   #2      3.46      6912     3135
   #3      4.85      9703     4401

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   1E-AZ        .7     1.4     2.0
 1   2A-AZ       1.6     2.8     3.8
 2   3G-AZ       2.4     4.0     5.6
 3   1A-FY        .2      .5      .8
 5   1B-FY        .9     1.6     2.2

 7   1C-FY      -1.2    -1.9    -2.7
10   R11-A       -.1     -.1      .1
11   R11-C       -.7    -1.1    -1.5
12   R08-A       1.4     2.5     3.7
14   R08-C      10.4    17.7    24.8

15   R06-A       0.0      .1      .1
16   R19-A        .6     1.1     1.7
17   R19-B       2.1     3.5     5.0
18   R19-C      -1.3    -2.2    -2.9
19   R20-A        .5      .9     1.4

21   R20-B      -1.6    -2.8    -3.9
22   R20-C       1.8     3.0     4.2
24   1D-FY       -.5     -.9    -1.2
25   R14-C      14.1    23.8    33.1
27   R07-C      -6.6   -11.4   -15.8

28   R03-C      -1.2    -2.1    -2.8
29   R13-A       -.5     -.6     -.8
30   R13-C        .3      .6     1.1
32   R06-C       -.4     -.9    -1.5
33   R04-A       2.1     2.4     3.2

34   R04-C       2.5     5.6     6.6
36   R10-B      -1.4    -1.8    -3.2
37   6F-AZ       2.9     3.8     5.0
39   6B-AZ      -5.0    -6.9    -9.7
42   6C-AZ      -2.3    -3.7    -4.3

43   6D-AZ       1.2     2.4     4.7
44   6E-AZ       3.2     3.8     6.2
47   R10-C        .1      .1      .2
48   6G-AZ        .7     3.1     4.2
50   S3-FI       4.7     9.3    13.6

51   S4-FI     -10.6   -17.7   -23.5
52   S5-FI      -2.4    -5.6    -8.2
56   R15-C       3.4     4.8     7.1
58   R01-A        .2      .2      .3
60   S1-FI       -.4     -.2      .1

61   S2-FI       1.3     2.2     4.2

SEP-07-89   11:08
```

```
FILE: E-1L-1

READING    TONS        LBS       KG
   #4      3.42       6832     3099
   #5      2.03       4069     1846
   #6      -.01        -11       -5

CH  GAUGE    #4 uS   #5 uS   #6 uS

 0  4C-AZ       .8      .6      .1
 1  1A-FZ      5.1     2.9     -.2
 2  1B-FZ      3.5     2.1     0.0
 3  1C-FZ      1.7     1.0       1
 5  1D-FZ    -29.2   -17.4      .4

 7  2E-FZ      5.1     3.0     -.1
10  1E-FZ    -28.8   -17.3      .2
11  1F-FZ     21.2    12.6     -.1
12  1G-FZ     19.1    11.3     -.2
14  3E-FZ      1.6      .9      .1

15  3F-FZ       .9      .5     -.1
16  2A-FZ     -1.0     -.6     -.1
17  2B-FZ     -3.6    -2.1     0.0
18  2C-FZ      2.7     1.8      .6
19  2D-FZ      1.0      .6      .1

21  4A-FZ      -.8     -.4      .3
22  4B-FZ      -.7     -.2      .2
24  2F-FZ      4.6     2.8      .1
25  2G-FZ      3.0     1.8      .1
27  3A-FZ      -.9     -.6     -.1

28  3B-FZ     -1.5     -.9      .1
29  3C-FZ     -1.8    -1.0      .1
30  3D-FZ      1.5      .9     -.1
32  3G-FZ       .6      .4     0.0
37  5E-FZ       .9      .3      .1

39  5F-FZ       .7      .6      .3
42  5A-FZ      -.2     -.1      .1
43  5B-FZ      0.0      .1      .1
46  5C-FZ      -.2     -.1     0.0
47  5G-FZ       .1      .1     0.0

48  5D-FZ       .2      .2     0.0
50  5F-AZ       .5      .1     -.4
51  4F-FZ      1.2      .4     0.0
52  4G-FZ      1.9     1.8      .1
56  4E-FZ      1.7      .9     0.0

60  4C-FZ      0.0     0.0      .1
61  4D-FZ       .2      .1     0.0

SEP-07-89   16:24
```

```
FILE: E-1L-1

READING    TONS        LBS       KG
   #1      1.98       3967     1800
   #2      3.60       7200     3266
   #3      5.08      10161     4609

CH  GAUGE    #1 uS   #2 uS   #3 uS

 0  4C-AZ       .4      .8     1.2
 1  1A-FZ      3.0     5.4     7.7
 2  1B-FZ      2.0     3.7     5.2
 3  1C-FZ      1.0     1.8     2.5
 5  1D-FZ    -17.2   -31.0   -43.6

 7  2E-FZ      2.9     5.5     7.6
10  1E-FZ    -16.5   -30.1   -42.7
11  1F-FZ     12.4    22.6    31.7
12  1G-FZ     11.3    20.5    28.7
14  3E-FZ      1.0     1.8     2.4

15  3F-FZ       .5     1.0     1.4
16  2A-FZ      -.5     -.9    -1.3
17  2B-FZ     -2.1    -3.7    -5.2
18  2C-FZ      1.5     2.6     3.7
19  2D-FZ       .6     1.1     1.5

21  4A-FZ      -.5     -.9    -1.2
22  4B-FZ      -.4     -.8    -1.1
24  2F-FZ      2.7     4.9     6.9
25  2G-FZ      1.7     3.1     4.3
27  3A-FZ      -.6    -1.0    -1.3

28  3B-FZ      -.9    -1.6    -2.4
29  3C-FZ     -1.0    -1.9    -2.7
30  3D-FZ       .9     1.6     2.3
32  3G-FZ       .4      .7     2.1
37  5E-FZ       .4     1.0     1.3

39  5F-FZ       .6      .7      .9
42  5A-FZ      -.2     -.2     -.2
43  5B-FZ      -.1     0.0     -.1
46  5C-FZ      -.2     -.2     -.3
47  5G-FZ       .1      .1       1

48  5D-FZ       .1      .2      .5
50  5F-AZ       .1      .5       9
51  4F-FZ       .4     1.4     1.4
52  4G-FZ      1.8     1.9     2.0
56  4E-FZ       .8     1.8     3.1

60  4C-FZ      0.0     -.1     0.0
61  4D-FZ       .1      .2      .3

SEP-07-89   16:24
```

```
FILE: E-2L-1

READING     TONS        LBS       KG
   #1       2.05       4103     1861
   #2       3.72       7431     3371
   #3       4.93       9867     4476

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   4C-AZ        .9     1.7     2.3
 1   1A-FZ        .2      .5      .7
 2   1B-FZ        .2      .2      .4
 3   1C-FZ      -1.7    -2.9    -3.9
 5   1D-FZ      -2.1    -3.9    -5.2

 7   2E-FZ     -22.4   -40.2   -53.4
10   1E-FZ      -5.6   -10.0   -13.4
11   1F-FZ      -4.2    -7.6   -10.2
12   1G-FZ        .5     1.0     1.4
14   3E-FZ       3.2     6.5     8.5

15   3F-FZ       2.6     4.9     6.4
16   2A-FZ       1.4     2.5     3.3
17   2B-FZ       -.6    -1.2    -1.6
18   2C-FZ      -3.4    -6.1    -8.0
19   2D-FZ     -15.0   -27.1   -36.1

21   4A-FZ       -.7    -1.2    -1.7
22   4B-FZ       -.5    -1.1    -1.4
24   2F-FZ      11.4    20.7    27.8
25   2G-FZ       4.8     8.7    11.9
27   3A-FZ       -.5     -.8    -1.0

28   3B-FZ       -.5    -1.1    -1.6
29   3C-FZ       -.4     -.8    -1.0
30   3D-FZ        .8     1.3     1.7
32   3G-FZ       1.8     3.2     5.0
37   5E-FZ       1.3     1.5     1.5

39   5F-FZ        .3      .4      .6
42   5A-FZ        .1     -.1     -.1
43   5B-FZ        .1     -.5     -.5
46   5C-FZ       -.1     -.4     -.5
47   5G-FZ        .1      .1      .2

48   5D-FZ        .4      .4     1.2
50   5F-AZ       -.1      .2     3.6
51   4F-FZ       1.3     1.5     1.6
52   4G-FZ        .1      .1      .4
56   4E-FZ       1.3     2.7     3.1

60   4C-FZ        .2      .4      .4
61   4D-FZ        .1     1.9     2.9

SEP-07-89 16:36  PULLED FROM
UPPER PADEYE #3
```

```
FILE: E-2L-1

READING     TONS        LBS       KG
   #4       3.36       6719     3048
   #5       1.97       3945     1789
   #6       -.01        -23      -10

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   4C-AZ       1.7     1.1      .4
 1   1A-FZ        .4      .1     -.2
 2   1B-FZ        .4      .2      .1
 3   1C-FZ      -2.8    -1.7     -.1
 5   1D-FZ      -3.5    -1.9      .2

 7   2E-FZ     -37.1   -22.0     -.1
10   1E-FZ      -9.2    -5.4      .1
11   1F-FZ      -7.0    -4.0      .2
12   1G-FZ       1.0      .7      .2
14   3E-FZ       6.0     4.0     1.0

15   3F-FZ       4.3     2.5     -.1
16   2A-FZ       2.3     1.3     0.0
17   2B-FZ      -1.0     -.5      .2
18   2C-FZ      -5.1    -2.6     1.4
19   2D-FZ     -24.5   -14.3      .2

21   4A-FZ      -1.1     -.6      .1
22   4B-FZ      -1.0     -.4      .4
24   2F-FZ      18.9    10.9     -.1
25   2G-FZ       7.7     4.3      .2
27   3A-FZ       -.7     -.5     -.1

28   3B-FZ       -.9     -.4      .1
29   3C-FZ       -.5     -.1      .5
30   3D-FZ       1.2      .8      .1
32   3G-FZ       2.5     1.8     -.2
37   5E-FZ       1.5     3.0     1.5

39   5F-FZ        .3      .3     -.1
42   5A-FZ       0.0     0.0     1.8
43   5B-FZ       -.4      .1      .4
46   5C-FZ       -.2     -.1     0.0
47   5G-FZ        .1      .1      .1

48   5D-FZ       1.0      .4      .1
50   5F-AZ       3.4     1.2     -.4
51   4F-FZ       1.5     1.3     1.4
52   4G-FZ        .1      .1     -.9
56   4E-FZ       2.7     1.3      .7

60   4C-FZ        .6      .7      .5
61   4D-FZ       1.4      .4      .1

SEP-07-89 16:36  PULLED FROM
UPPER PADEYE #3
```

```
FILE: E-3L-1

READING    TONS       LBS      KG
   #1      2.14      4284    1943
   #2      3.60      7205    3268
   #3      4.98      9963    4519

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  4C-AZ      1.2     2.0     2.6
 1  1A-FZ      -.3     -.6     -.9
 2  1B-FZ     -1.0    -1.7    -2.3
 3  1C-FZ     -1.0    -1.7    -2.3
 5  1D-FZ       .8     1.3     1.9

 7  2E-FZ     -5.4    -9.2   -12.7
10  1E-FZ       .7     1.2     1.7
11  1F-FZ       .7     1.2     1.6
12  1G-FZ       .2      .3      .4
14  3E-FZ    -20.4   -34.4   -46.9

15  3F-FZ     14.8    25.4    35.1
16  2A-FZ      -.1     -.1     -.2
17  2B-FZ     -1.8    -2.9    -3.9
18  2C-FZ      2.3     4.0     5.5
19  2D-FZ     -2.6    -4.4    -6.1

21  4A-FZ      -.7    -1.2    -1.6
22  4B-FZ      -.9    -1.5    -2.0
24  2F-FZ     -3.1    -5.3    -7.3
25  2G-FZ       .5      .9     1.3
27  3A-FZ      1.7     2.9     4.1

28  3B-FZ      2.4     4.1     5.7
29  3C-FZ      5.0     8.4    11.5
30  3D-FZ    -15.3   -26.3   -36.3
32  3G-FZ     10.8    17.9    24.6
37  5E-FZ      2.0     2.2     2.4

39  5F-FZ       .2      .9     1.3
42  5A-FZ      -.2     -.3     -.3
43  5B-FZ      -.3     -.3     -.6
46  5C-FZ     -1.5    -2.4    -2.6
47  5G-FZ       .6     1.0     1.9

48  5D-FZ      1.0     1.3     1.4
50  5F-AZ       .1      .1      .1
51  4F-FZ      2.6     5.5     6.1
52  4G-FZ      2.5     3.8     4.2
56  4E-FZ      1.0     2.4     4.5

60  4C-FZ      -.1     -.3     -.3
61  4D-FZ       .9     2.1     2.5

SEP-07-89    17:15
```

```
FILE: E-3L-1

READING    TONS       LBS      KG
   #4      3.44      6883    3122
   #5      1.99      3973    1802
   #6      -.01       -11      -5

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  4C-AZ      2.0     1.2      .2
 1  1A-FZ      -.6     -.3      .1
 2  1B-FZ     -1.6     -.9      .1
 3  1C-FZ     -1.5     -.8      .1
 5  1D-FZ      1.3      .9      .3

 7  2E-FZ     -8.8    -5.0      .2
10  1E-FZ      1.3     1.0      .4
11  1F-FZ      1.2      .8      .3
12  1G-FZ       .4      .3      .2
14  3E-FZ    -33.2   -19.5      .3

15  3F-FZ     24.7    14.3      .2
16  2A-FZ      -.1     -.1      .1
17  2B-FZ     -2.8    -1.7     -.1
18  2C-FZ      4.1     2.9     1.2
19  2D-FZ     -4.2    -2.4      .1

21  4A-FZ     -1.0     -.4      .5
22  4B-FZ     -1.3     -.5      .5
24  2F-FZ     -5.0    -2.9      .2
25  2G-FZ      1.0      .5      .1
27  3A-FZ      2.9     1.7      .1

28  3B-FZ      4.0     2.4     -.1
29  3C-FZ      8.2     4.9      .1
30  3D-FZ    -25.3   -14.5      .2
32  3G-FZ     17.1     9.6     0.0
37  5E-FZ      2.2     2.1      .2

39  5F-FZ      1.0      .4      .1
42  5A-FZ      -.2     -.1      .1
43  5B-FZ      -.3     -.3      .1
46  5C-FZ     -2.1    -1.3      .1
47  5G-FZ      1.0      .7      .1

48  5D-FZ      1.3     1.0      .5
50  5F-AZ       .1      .1      .1
51  4F-FZ      5.3     2.6      .2
52  4G-FZ      3.7     2.5      .1
56  4E-FZ      2.4     1.0      .2

60  4C-FZ      -.3     -.3      .7
61  4D-FZ      2.1      .9     0.0

SEP-07-89    17:15
```

```
FILE: E-4L-1

READING    TONS        LBS       KG
   #1      1.98        3950      1792
   #2      3.25        6493      2945
   #3      4.88        9765      4430

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   4C-AZ      -3.3     -5.5     -8.1
 1   1A-FZ       -.2      -.4      -.6
 2   1B-FZ       -.6     -1.1     -1.5
 3   1C-FZ       -.7     -1.0     -1.6
 5   1D-FZ        .1       .2       .4

 7   2E-FZ        .6      1.2      1.8
10   1E-FZ        .1       .1       .2
11   1F-FZ        .2       .1       .3
12   1G-FZ        .3       .4       .6
14   3E-FZ      -4.7     -7.6    -11.4

15   3F-FZ      -3.1     -5.0     -7.5
16   2A-FZ       -.5      -.9     -1.3
17   2B-FZ      -1.7     -2.7     -4.0
18   2C-FZ       2.0      3.4      5.0
19   2D-FZ        .5       .8      1.3

21   4A-FZ       1.2      2.0      2.9
22   4B-FZ        .2       .4       .5
24   2F-FZ        .8      1.3      1.9
25   2G-FZ        .2       .5       .7
27   3A-FZ       -.2      -.4      -.7

28   3B-FZ       -.7     -1.2     -1.7
29   3C-FZ       -.9     -1.4     -2.1
30   3D-FZ      -2.2     -3.9     -5.6
32   3G-FZ        .3       .9      1.8
37   5E-FZ       1.7      4.0      5.2

39   5F-FZ       3.5      4.4      7.4
42   5A-FZ       -.6      -.6      -.7
43   5B-FZ       -.1      -.1      -.2
46   5C-FZ       0.0      0.0      -.1
47   5G-FZ       2.1      2.4      3.8

48   5D-FZ       0.0       .1      -.1
50   5F-AZ       0.0      -.1      -.1
51   4F-FZ      16.9     26.5     39.0
52   4G-FZ      11.5     19.1     27.5
56   4E-FZ     -19.1    -31.0    -46.5

60   4C-FZ        .7      1.0      1.2
61   4D-FZ     -12.1    -20.1    -29.1

SEP-07-89    17:27
```

```
FILE: E-4L-1

READING    TONS        LBS       KG
   #4      3.42        6838      3102
   #5      2.00        4001      1815
   #6       .05          90        41

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   4C-AZ      -5.6     -3.2       .3
 1   1A-FZ       -.3      -.2       .2
 2   1B-FZ      -1.0      -.6       .2
 3   1C-FZ      -1.0      -.6       .2
 5   1D-FZ        .4       .3       .2

 7   2E-FZ       1.1       .7      -.1
10   1E-FZ        .2       .1       .1
11   1F-FZ        .2       .1      0.0
12   1G-FZ        .5       .4       .2
14   3E-FZ      -8.0     -4.8      -.1

15   3F-FZ      -5.2     -3.1       .1
16   2A-FZ       -.9      -.5       .1
17   2B-FZ      -2.8     -1.7       .1
18   2C-FZ       3.8      2.6      1.0
19   2D-FZ        .9       .6       .1

21   4A-FZ       2.1      1.4       .4
22   4B-FZ        .5       .5       .5
24   2F-FZ       1.3       .8      -.1
25   2G-FZ        .5       .4       .2
27   3A-FZ       -.7      -.6      -.5

28   3B-FZ      -1.2      -.5       .1
29   3C-FZ      -1.4      -.7       .2
30   3D-FZ      -3.9     -2.3       .1
32   3G-FZ       1.2       .3      0.0
37   5E-FZ       4.3      2.4       .4

39   5F-FZ       4.8      3.6       .1
42   5A-FZ       -.3      0.0       .3
43   5B-FZ       -.1      0.0       .2
46   5C-FZ       -.1       .1      0.0
47   5G-FZ       2.5      2.2       .2

48   5D-FZ        .1       .1       .2
50   5F-AZ       -.1      -.1      -.1
51   4F-FZ      28.5     16.9      -.1
52   4G-FZ      19.4     11.5      0.0
56   4E-FZ     -33.2    -19.4       .1

60   4C-FZ       1.0       .8       .6
61   4D-FZ     -20.7    -12.6       .2

SEP-07-89    17:27
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```
FILE: E-5L-1

READING     TONS          LBS        KG
   #1       2.15         4306      1953
   #2       3.50         7002      3176
   #3       5.13        10268      4658

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   4C-AZ       1.7      2.8      4.0
 1   1A-FZ       -.2      -.2      -.5
 2   1B-FZ       -.5      -.9     -1.3
 3   1C-FZ       -.5      -.9     -1.3
 5   1D-FZ        .1       .1       .2

 7   2E-FZ        .1       .1       .3
10   1E-FZ        .1       .1       .1
11   1F-FZ        .1       .2       .3
12   1G-FZ        .2       .4       .5
14   3E-FZ        .7      1.2      1.9

15   3F-FZ        .6      1.0      1.5
16   2A-FZ       -.4      -.7      -.9
17   2B-FZ      -1.2     -2.0     -2.9
18   2C-FZ       1.4      2.4      3.6
19   2D-FZ        .1       .2       .4

21   4A-FZ       -.3      -.5      -.6
22   4B-FZ       -.6     -1.0     -1.4
24   2F-FZ        .4       .5       .9
25   2G-FZ        .4       .6       .9
27   3A-FZ       -.8     -1.2     -1.6

28   3B-FZ      -1.1     -1.9     -2.7
29   3C-FZ      -1.0     -1.7     -2.5
30   3D-FZ        .9      1.5      2.3
32   3G-FZ        .2       .2       .4
37   5E-FZ     -14.0    -23.1    -32.1

39   5F-FZ      16.4     26.3     38.2
42   5A-FZ        .9      2.3      4.3
43   5B-FZ       2.1      3.9      5.0
46   5C-FZ       4.1      7.8     10.4
47   5G-FZ       8.6     14.6     20.9

48   5D-FZ     -15.8    -26.9    -37.8
50   5F-AZ      39.6     64.9     94.8
51   4F-FZ      -3.6     -4.5     -7.5
52   4G-FZ       1.0      2.3      2.5
56   4E-FZ      -5.7     -7.8    -11.5

60   4C-FZ       -.2      -.3      -.5
61   4D-FZ      -3.1     -5.2     -6.8

SEP-06-89    18:03
```

```
FILE: E-5L-1

READING     TONS          LBS        KG
   #4       3.44         6872      3117
   #5       2.09         4171      1892
   #6       -.00           -6        -3

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   4C-AZ       2.9      1.8       .2
 1   1A-FZ       -.2      -.1       .1
 2   1B-FZ       -.9      -.5      0.0
 3   1C-FZ       -.9      -.5       .1
 5   1D-FZ        .2       .2       .1

 7   2E-FZ        .2       .1      -.1
10   1E-FZ        .1       .1       .1
11   1F-FZ        .2       .2       .1
12   1G-FZ        .4       .2       .1
14   3E-FZ       1.3       .6      -.3

15   3F-FZ       1.0       .6      0.0
16   2A-FZ       -.6      -.4      0.0
17   2B-FZ      -2.0     -1.3      -.1
18   2C-FZ       2.7      2.1      1.1
19   2D-FZ        .2       .2       .1

21   4A-FZ       -.2      -.1       .3
22   4B-FZ       -.8      -.4        4
24   2F-FZ        .6       .4      0.0
25   2G-FZ        .6       .4      0.0
27   3A-FZ      -1.1      -.6       .1

28   3B-FZ      -1.8     -1.0       .1
29   3C-FZ      -1.7      -.9       .1
30   3D-FZ       1.5      1.0       .1
32   3G-FZ        .2       .1      -.4
37   5E-FZ     -23.1    -14.0      0.0

39   5F-FZ      26.3     16.0      0.0
42   5A-FZ       2.2       .9       .1
43   5B-FZ       3.9      1.9       .1
46   5C-FZ       7.8      4.1      0.0
47   5G-FZ      14.1      8.5       .1

48   5D-FZ     -26.8    -15.5       .1
50   5F-AZ      64.4     39.3      -.1
51   4F-FZ      -4.3     -3.4       .1
52   4G-FZ       2.3      1.1       .1
56   4E-FZ      -7.8     -4.3      0.0

60   4C-FZ       -.4      -.4      -.1
61   4D-FZ      -5.2     -3.1       .1

SEP-06-89    18:03
```

```
FILE: E-6L-1

READING    TONS        LBS      KG
   #1      2.02       4046    1835
   #2      3.80       7601    3448
   #3      5.06      10127    4594

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   4C-AZ       1.0      1.9      2.6
 1   1A-FZ       -.1      -.2      -.2
 2   1B-FZ       -.2      -.5      -.6
 3   1C-FZ       -.2      -.6      -.7
 5   1D-FZ        .1       .2       .2

 7   2E-FZ        .1       .2       .1
10   1E-FZ       -.1      -.1      0.0
11   1F-FZ       0.0       .1       .4
12   1G-FZ        .2       .3       .4
14   3E-FZ       0.0      0.0       .1

15   3F-FZ       0.0      0.0       .1
16   2A-FZ       -.1      -.2      -.4
17   2B-FZ       -.8     -1.3     -1.8
18   2C-FZ        .7      1.4      2.0
19   2D-FZ        .1       .1       .1

21   4A-FZ       -.4      -.8     -1.3
22   4B-FZ       -.3      -.8     -1.0
24   2F-FZ        .1       .2       .3
25   2G-FZ        .2       .4       .5
27   3A-FZ       -.2      -.5      -.7

28   3B-FZ       -.5     -1.0     -1.3
29   3C-FZ       -.4      -.9     -1.1
30   3D-FZ        .1       .2       .3
32   3G-FZ        .1       .3       .7
37   5E-FZ       0.0      0.0      -.6

39   5F-FZ       -.4     -1.1     -1.3
42   5A-FZ       0.0      0.0      -.2
43   5B-FZ       0.0      0.0      0.0
46   5C-FZ       -.1      -.4      -.4
47   5G-FZ       0.0       .1       .1

48   5D-FZ        .1       .1      -.1
50   5F-AZ        .4       .5       .8
51   4F-FZ       1.4      2.9      3.1
52   4G-FZ        .4       .4      1.1
56   4E-FZ        .2       .3       .4

60   4C-FZ       -.4      -.5      -.5
61   4D-FZ        .1       .1       .1

SEP-07-89    18:17  LAST E CAL
```

```
FILE: E-6L-1

READING    TONS        LBS      KG
   #4      3.37       6748    3061
   #5      1.95       3905    1771
   #6       .00          6       3

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   4C-AZ       1.8      1.3       .2
 1   1A-FZ       -.1      0.0      0.0
 2   1B-FZ       -.4      -.1       .2
 3   1C-FZ       -.4      -.2       .1
 5   1D-FZ        .2       .1       .1

 7   2E-FZ        .1      0.0       .1
10   1E-FZ       0.0      0.0      0.0
11   1F-FZ        .5       .5       .7
12   1G-FZ        .2       .2       .1
14   3E-FZ        .1       .1       .1

15   3F-FZ       0.0      0.0      -.1
16   2A-FZ       -.2      -.1       .1
17   2B-FZ      -1.3      -.9      -.2
18   2C-FZ       1.6      1.1       .7
19   2D-FZ        .1       .1       .1

21   4A-FZ       -.7      -.3       .3
22   4B-FZ       -.5      -.2       .5
24   2F-FZ        .2       .1      -.1
25   2G-FZ        .3       .3       .1
27   3A-FZ       -.5      -.3       .1

28   3B-FZ       -.1      1.7      6.1
29   3C-FZ       -.6      -.2       .3
30   3D-FZ        .3       .2       .2
32   3G-FZ        .4      -.2      -.3
37   5E-FZ       0.0      -.1      1.0

39   5F-FZ      -1.0      -.5      0.0
42   5A-FZ       0.0       .1       .1
43   5B-FZ       0.0       .1       .2
46   5C-FZ       -.2      -.1      0.0
47   5G-FZ        .2       .1      -.3

48   5D-FZ        .1       .1       .1
50   5F-AZ        .4       .1     -1.8
51   4F-FZ       3.4      -.2      1.7
52   4G-FZ        .1      -.1      -.4
56   4E-FZ        .4       .2       .2

60   4C-FZ       -.5      -.4       .1
61   4D-FZ        .1       .1       .1

SEP-07-89    18:17  LAST E CAL
```

```
FILE: E-1U-1

READING     TONS        LBS       KG
   #1       1.97       3933     1784
   #2       3.60       7194     3263
   #3       4.87       9737     4417

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   4C-AZ         .2      .4      .6
 1   1A-FZ      -10.8   -20.1   -27.5
 2   1B-FZ        3.3     6.1     8.6
 3   1C-FZ        7.6    14.1    19.3
 5   1D-FZ        -.5     -.9    -1.2

 7   2E-FZ         .3      .6      .8
10   1E-FZ       -1.0    -1.8    -2.4
11   1F-FZ        -.8    -1.4    -2.0
12   1G-FZ        -.7    -1.3    -1.8
14   3E-FZ         .2      .8     1.0

15   3F-FZ         .5      .9     1.2
16   2A-FZ        -.1     -.2     -.4
17   2B-FZ       -1.3    -2.3    -3.2
18   2C-FZ        -.2     -.3     -.4
19   2D-FZ         .1     0.0      .1

21   4A-FZ        -.1     -.4     -.4
22   4B-FZ        -.1     -.1     -.2
24   2F-FZ         .5      .9     1.2
25   2G-FZ         .5      .9     1.1
27   3A-FZ        -.5     -.7     -.8

28   3B-FZ        -.3     -.5     -.7
29   3C-FZ        -.4     -.7     -.9
30   3D-FZ         .4      .7     1.0
32   3G-FZ         .9     1.0     1.3
37   5E-FZ        0.0     0.0      .2

39   5F-FZ         .6     1.2     1.3
42   5A-FZ        0.0     0.0     0.0
43   5B-FZ        0.0     0.0     0.0
46   5C-FZ        -.1     -.2     -.1
47   5G-FZ         .1      .1      .8

48   5D-FZ         .1      .1      .2
50   5F-AZ        1.0     1.2     1.4
51   4F-FZ        0.0      .1      .2
52   4G-FZ         .1      .3     1.8
56   4E-FZ         .2      .4      .5

60   4C-FZ        0.0     0.0      .1
61   4D-FZ         .1      .2      .2

SEP-07-89    16:11
```

```
FILE: E-1U-1

READING     TONS        LBS       KG
   #4       3.42       6844     3104
   #5       1.99       3990     1810
   #6       -.00         -6       -3

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   4C-AZ         .6      .4      .2
 1   1A-FZ      -19.5   -11.6      .1
 2   1B-FZ        5.6     3.3     -.1
 3   1C-FZ       13.6     8.0     0.0
 5   1D-FZ        -.8     -.4     0.0

 7   2E-FZ         .7      .4     -.1
10   1E-FZ       -1.6    -1.0      .2
11   1F-FZ       -1.4     -.8      .1
12   1G-FZ       -1.3     -.7      .1
14   3E-FZ         .6      .2     -.3

15   3F-FZ         .9      .5      .1
16   2A-FZ        -.2     -.2     0.0
17   2B-FZ       -2.2    -1.4      .1
18   2C-FZ        -.1      .4     1.1
19   2D-FZ         .1      .1     -.1

21   4A-FZ        -.2     -.1      .2
22   4B-FZ        -.1      .1      .3
24   2F-FZ         .9      .6      .1
25   2G-FZ         .9      .6      .3
27   3A-FZ        -.7     -.6     -.6

28   3B-FZ        -.4     -.3     -.1
29   3C-FZ        -.6     -.3      .1
30   3D-FZ         .9      .5     0.0
32   3G-FZ        1.0     1.0      .6
37   5E-FZ         .1     0.0      .1

39   5F-FZ        1.3      .9      .4
42   5A-FZ        0.0     0.0     0.0
43   5B-FZ        0.0     0.0     0.0
46   5C-FZ        -.1     -.1     -.1
47   5G-FZ         .1      .1      .1

48   5D-FZ         .2      .1      .1
50   5F-AZ        1.3     1.4     1.4
51   4F-FZ         .2     0.0     0.0
52   4G-FZ         .2      .1     0.0
56   4E-FZ         .4      .2      .1

60   4C-FZ         .1     0.0      .1
61   4D-FZ         .2      .1     -.1

SEP-07-89    16:11
```

```
FILE: E-2U-1

READING    TONS        LBS        KG
   #1      1.97        3933      1784
   #2      3.50        7002      3176
   #3      5.02       10031      4550

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   4C-AZ         .6       .9      1.3
 1   1A-FZ       -2.2     -4.0     -5.8
 2   1B-FZ       -3.3     -5.9     -8.2
 3   1C-FZ        2.8      4.8      6.9
 5   1D-FZ         .8      1.4      2.1

 7   2E-FZ        -.5      -.9     -1.2
10   1E-FZ         .3       .5       .8
11   1F-FZ         .4       .7       .9
12   1G-FZ         .4       .7      1.0
14   3E-FZ         .2       .9      1.7

15   3F-FZ         .9      1.6      2.3
16   2A-FZ       -5.8    -10.7    -15.2
17   2B-FZ      -13.7    -24.6    -34.9
18   2C-FZ      -13.1    -23.7    -33.7
19   2D-FZ         .2       .3       .5

21   4A-FZ        -.4      -.7      -.9
22   4B-FZ        -.1      -.1      -.2
24   2F-FZ        -.5      -.9     -1.3
25   2G-FZ        -.4      -.7     -1.0
27   3A-FZ        -.4      -.7      -.9

28   3B-FZ         .7      1.2      1.6
29   3C-FZ        0.0       .1       .1
30   3D-FZ         .7      1.2      1.8
32   3G-FZ         .4       .7      1.4
37   5E-FZ         .4       .7      1.5

39   5F-FZ         .1       .3       .3
42   5A-FZ        0.0      -.1      -.1
43   5B-FZ        0.0      0.0      0.0
46   5C-FZ        -.1      -.7      -.7
47   5G-FZ         .2       .3       .9

48   5D-FZ         .7      1.2      2.3
50   5F-AZ         .2       .4       .4
51   4F-FZ         .6       .8      2.5
52   4G-FZ         .2       .4       .9
56   4E-FZ        1.4      1.8      2.0

60   4C-FZ        -.2      -.4      -.8
61   4D-FZ         .7      1.3      2.5

SEP-07-89   16:56  PULLED FROM
UPPER PADEYE #3
```

```
FILE: E-2U-1

READING    TONS        LBS        KG
   #4      3.53        7053      3199
   #5      1.98        3950      1792
   #6      -.00          -6        -3

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   4C-AZ        1.0       .6       .2
 1   1A-FZ       -4.2     -2.4       .3
 2   1B-FZ       -6.2     -3.6       .2
 3   1C-FZ        5.3      3.2       .2
 5   1D-FZ        1.6      1.1       .3

 7   2E-FZ        -.9      -.4      0.0
10   1E-FZ         .7       .5       .2
11   1F-FZ         .7       .5       .1
12   1G-FZ         .7       .4       .1
14   3E-FZ        1.1       .3      -.7

15   3F-FZ        1.8      1.1       .1
16   2A-FZ      -11.3     -6.5       .3
17   2B-FZ      -26.5    -15.6       .1
18   2C-FZ      -25.2    -14.4      1.0
19   2D-FZ         .4       .3       .1

21   4A-FZ        -.5      0.0       .7
22   4B-FZ        0.0       .3       .7
24   2F-FZ        -.9      -.5       .1
25   2G-FZ        -.7      -.4       .1
27   3A-FZ        -.6      -.3       .1

28   3B-FZ        1.3       .9       .1
29   3C-FZ         .2       .2       .2
30   3D-FZ        1.5       .9       .2
32   3G-FZ         .7       .4       .2
37   5E-FZ         .8       .6       .3

39   5F-FZ         .2       .1       .1
42   5A-FZ        -.1      -.1      0.0
43   5B-FZ        0.0      0.0      0.0
46   5C-FZ        -.7      0.0       .5
47   5G-FZ         .6       .3        2

48   5D-FZ        1.7      1.0       .6
50   5F-AZ         .4       .2       .1
51   4F-FZ         .5       .6       .2
52   4G-FZ         .4       .2      0.0
56   4E-FZ        1.8      1.6       .7

60   4C-FZ         .1      -.7       .9
61   4D-FZ        1.4       .7       .1

SEP-07-89   16:56  PULLED FROM
UPPER PADEYE #3
```

```
FILE: E-3U-1

READING     TONS        LBS       KG
    #1      1.93       3865     1753
    #2      3.49       6974     3163
    #3      5.00       9992     4532

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   4C-AZ       -1.1    -1.9    -2.0
 1   1A-FZ        -.4     -.7    -1.0
 2   1B-FZ       -1.0    -1.7    -2.5
 3   1C-FZ       -1.1    -2.0    -2.0
 5   1D-FZ         .5     1.0     1.5

 7   2E-FZ         .9     1.5     2.2
10   1E-FZ         .4      .7      .9
11   1F-FZ         .6     1.0     1.3
12   1G-FZ         .5     1.1     1.5
14   3E-FZ        -.3     -.5     -.7

15   3F-FZ        -.3     -.4     -.7
16   2A-FZ       -1.9    -3.4    -4.8
17   2B-FZ       -3.1    -5.6    -8.0
18   2C-FZ         .8     1.4     2.0
19   2D-FZ        1.1     1.9     2.7

21   4A-FZ        -.5    -1.0    -1.3
22   4B-FZ        1.4     2.4     3.4
24   2F-FZ        1.2     2.0     2.9
25   2G-FZ        1.0     1.7     2.4
27   3A-FZ       -7.4   -13.4   -19.0

28   3B-FZ       -9.1   -16.8   -23.8
29   3C-FZ       16.2    29.8    42.4
30   3D-FZ        -.1     -.1     -.1
32   3G-FZ        -.1     -.1     -.2
37   5E-FZ        1.0     2.5     2.7

39   5F-FZ         .2     1.0     1.5
42   5A-FZ        -.1     -.1     -.3
43   5B-FZ        0.0     -.2     -.4
46   5C-FZ        -.6    -1.3    -1.5
47   5G-FZ        1.0     2.1     3.0

48   5D-FZ        1.7     2.0     2.3
50   5F-AZ         .2      .4      .6
51   4F-FZ         .6     2.5     2.8
52   4G-FZ         .4     1.5     2.7
56   4E-FZ         .7     1.1     2.1

60   4C-FZ        -.1     -.2     4.7
61   4D-FZ        1.3     2.8     3.3

SEP-07-89    17:05
```

```
FILE: E-3U-1

READING     TONS        LBS       KG
    #4      3.43       6866     3115
    #5      2.01       4018     1823
    #6      -.00         -6       -3

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   4C-AZ       -1.8    -1.0      .2
 1   1A-FZ        -.6     -.3      .2
 2   1B-FZ       -1.7    -1.0      .2
 3   1C-FZ       -2.0    -1.1      .3
 5   1D-FZ        1.1      .7      .2

 7   2E-FZ        1.5     1.0     0.0
10   1E-FZ         .7      .5      .1
11   1F-FZ        1.0      .7      .3
12   1G-FZ        1.1      .7      .2
14   3E-FZ        -.4     -.2     -.1

15   3F-FZ        -.3     0.0      .1
16   2A-FZ       -3.2    -1.9      .2
17   2B-FZ       -5.6    -3.3     0.0
18   2C-FZ        1.7     1.4     1.1
19   2D-FZ        1.9     1.2      .1

21   4A-FZ        -.8     -.3      .5
22   4B-FZ        2.6     1.7      .6
24   2F-FZ        2.0     1.3      .1
25   2G-FZ        1.6     1.0      .1
27   3A-FZ      -12.9    -7.5      .2

28   3B-FZ      -17.0   -10.8     -.1
29   3C-FZ       29.4    17.6      .2
30   3D-FZ        -.2     -.3     -.1
32   3G-FZ        0.0      .1     0.0
37   5E-FZ        2.5     2.3     0.0

39   5F-FZ        1.1      .4     0.0
42   5A-FZ        -.1     -.1      .1
43   5B-FZ        -.1     0.0      .1
46   5C-FZ       -1.2     -.7      .6
47   5G-FZ        2.2     1.3      .1

48   5D-FZ        2.0     1.7      .2
50   5F-AZ         .4      .2      .1
51   4F-FZ        2.5      .7     0.0
52   4G-FZ        1.5      .5     0.0
56   4E-FZ        1.1      .7      .1

60   4C-FZ         .8     1.8     1.1
61   4D-FZ        2.9     2.0      .1

SEP-07-89    17:05
```

```
FILE: E-4U-1

READING     TONS        LBS       KG
   #1       2.00       3995     1812
   #2       3.70       7409     3361
   #3       5.07      10133     4596

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   4C-AZ     -24.9   -45.9   -64.1
 1   1A-FZ       -.4     -.7     -.9
 2   1B-FZ       -.9    -1.5    -2.1
 3   1C-FZ       -.7    -1.3    -1.8
 5   1D-FZ        .4      .6      .9

 7   2E-FZ        .4      .8     1.1
10   1E-FZ        .2      .4      .5
11   1F-FZ        .3      .5      .8
12   1G-FZ        .4      .8     1.1
14   3E-FZ       1.2     2.0     2.7

15   3F-FZ       1.2     2.1     2.9
16   2A-FZ       -.7    -1.2    -1.7
17   2B-FZ      -1.4    -2.6    -3.4
18   2C-FZ       2.0     3.7     5.1
19   2D-FZ        .3      .6      .9

21   4A-FZ      -8.7   -16.0   -22.2
22   4B-FZ      -8.1   -14.2   -19.3
24   2F-FZ        .8     1.5     1.9
25   2G-FZ        .9     1.4     2.0
27   3A-FZ      -2.5    -4.5    -6.1

28   3B-FZ      -3.4    -6.3    -8.7
29   3C-FZ       -.2     -.4     -.6
30   3D-FZ       1.5     2.7     3.7
32   3G-FZ       1.5     3.1     3.5
37   5E-FZ        .5     2.0     3.4

39   5F-FZ       1.0     1.7     3.4
42   5A-FZ       -.4     -.7     -.7
43   5B-FZ        .4      .7     1.9
46   5C-FZ        .2      .2      .4
47   5G-FZ        .9     1.3     1.4

48   5D-FZ        .4      .6      .8
50   5F-AZ        .2      .4      .7
51   4F-FZ       -.1     -.4     -.7
52   4G-FZ       -.1     -.2     -.4
56   4E-FZ       -.3     -.7    -1.9

60   4C-FZ      12.3    22.0    32.2
61   4D-FZ      -1.5    -1.9    -3.8

SEP-07-89   17:45
```

```
FILE: E-4U-1

READING     TONS        LBS       KG
   #4       3.42       6844     3104
   #5       2.04       4075     1848
   #6       -.00         -6       -3

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   4C-AZ     -43.1   -25.2      .2
 1   1A-FZ       -.7     -.3      .1
 2   1B-FZ      -1.4     -.8      .1
 3   1C-FZ      -1.2     -.7      .1
 5   1D-FZ        .6      .4      .1

 7   2E-FZ        .7      .4     -.2
10   1E-FZ        .4      .2      .1
11   1F-FZ        .5      .4     0.0
12   1G-FZ        .7      .5      .1
14   3E-FZ       1.9     1.1     -.1

15   3F-FZ       1.9     1.2     -.1
16   2A-FZ      -1.2     -.6      .1
17   2B-FZ      -2.4    -1.5     -.1
18   2C-FZ       3.7     2.7     1.1
19   2D-FZ        .6      .4      .1

21   4A-FZ     -14.9    -8.7      .5
22   4B-FZ     -13.1    -7.7      .4
24   2F-FZ       1.3      .7     -.2
25   2G-FZ       1.4      .9     0.0
27   3A-FZ      -4.1    -2.5     0.0

28   3B-FZ      -5.9    -3.5     0.0
29   3C-FZ       -.4     -.1      .2
30   3D-FZ       2.6     1.5      .2
32   3G-FZ       3.0     1.5     -.1
37   5E-FZ       1.8      .6      .1

39   5F-FZ       1.6     1.0     0.0
42   5A-FZ       -.6     -.1      .7
43   5B-FZ        .7      .4      .1
46   5C-FZ        .2      .2      .1
47   5G-FZ       1.2      .9     0.0

48   5D-FZ        .5      .4      .1
50   5F-AZ        .4      .2      .1
51   4F-FZ       -.2      .6     1.9
52   4G-FZ       -.2     -.1     0.0
56   4E-FZ       -.8     -.4     -.1

60   4C-FZ      20.0    10.4     -.7
61   4D-FZ      -1.8    -1.5      .2

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```

```
FILE: E-5U-1

READING    TONS        LBS      KG
   #1      2.16       4318    1958
   #2      3.68       7352    3335
   #3      5.00       9997    4535

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  4C-AZ      1.6     2.7     3.7
 1  1A-FZ      -.1     -.4     -.5
 2  1B-FZ      -.6    -1.0    -1.3
 3  1C-FZ      -.6     -.9    -1.3
 5  1D-FZ       .3      .4      .7

 7  2E-FZ       .2      .7      .8
10  1E-FZ       .1      .3      .4
11  1F-FZ       .2      .4      .6
12  1G-FZ       .3      .5      .6
14  3E-FZ       .6     1.0      .2

15  3F-FZ       .9     1.5     2.0
16  2A-FZ      -.6    -1.0    -1.4
17  2B-FZ     -1.4    -2.3    -3.1
18  2C-FZ      1.5     2.6     3.5
19  2D-FZ       .3      .5      .7

21  4A-FZ     -2.8    -4.8    -6.7
22  4B-FZ     -2.0    -3.4    -4.7
24  2F-FZ       .6     1.0     1.3
25  2G-FZ       .5      .9     1.2
27  3A-FZ      -.6    -1.0    -1.5

28  3B-FZ     -1.0    -1.5    -2.0
29  3C-FZ     -1.2    -2.0    -2.8
30  3D-FZ       .5     1.0     1.3
32  3G-FZ      1.5     3.0     3.3
37  5E-FZ      -.6    -2.1    -2.5

39  5F-FZ      -.9    -1.0    -1.2
42  5A-FZ     -9.4   -15.4   -21.3
43  5B-FZ     -7.1   -11.1   -14.4
46  5C-FZ     19.3    31.7    43.6
47  5G-FZ     -1.3    -1.8    -2.5

48  5D-FZ      -.4     -.9    -1.6
50  5F-AZ      -.3     -.4     -.6
51  4F-FZ      1.1     1.9     2.9
52  4G-FZ      1.9     2.9     3.3
56  4E-FZ       .5     1.5     1.9

60  4C-FZ      0.0     -.1     -.3
61  4D-FZ      1.3     1.7     2.8

SEP-07-89   17:54
```

```
FILE: E-5U-1

READING    TONS        LBS      KG
   #4      3.42       6849    3107
   #5      2.07       4137    1876
   #6      -.00         -6      -3

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  4C-AZ      2.6     1.7      .2
 1  1A-FZ      -.3     -.1      .2
 2  1B-FZ      -.9     -.6     0.0
 3  1C-FZ     -1.0     -.6     0.0
 5  1D-FZ       .5      .5      .2

 7  2E-FZ       .7      .4      .1
10  1E-FZ       .4      .2      .1
11  1F-FZ       .5      .2      .1
12  1G-FZ       .5      .2      .1
14  3E-FZ     -1.2    -1.5    -2.2

15  3F-FZ      1.5      .9      .1
16  2A-FZ     -1.0     -.6     -.1
17  2B-FZ     -2.2    -1.4     -.2
18  2C-FZ      2.7     2.1     1.1
19  2D-FZ       .5      .4      .1

21  4A-FZ     -4.6    -2.5      .2
22  4B-FZ     -3.1    -1.7      .4
24  2F-FZ      1.0      .7      .1
25  2G-FZ       .8      .5     0.0
27  3A-FZ     -1.2    -1.2     -.6

28  3B-FZ     -1.5     -.9     -.1
29  3C-FZ     -1.9    -1.1      .1
30  3D-FZ      1.0      .6      .1
32  3G-FZ      2.9     1.5     0.0
37  5E-FZ     -2.0     -.3     0.0

39  5F-FZ     -1.0     -.8     -.4
42  5A-FZ    -14.9    -8.2     0.0
43  5B-FZ    -10.1    -6.2      .1
46  5C-FZ     30.8    17.3     -.1
47  5G-FZ     -1.7    -1.2      .1

48  5D-FZ      -.6     -.3     0.0
50  5F-AZ      -.4     -.2     0.0
51  4F-FZ      1.4     1.1      .1
52  4G-FZ      3.0     2.0      .4
56  4E-FZ      1.4      .5      .1

60  4C-FZ      -.1     0.0      .1
61  4D-FZ      1.7     1.3      .4

SEP-07-89   17:54
```

```
FILE: E-2S-1

READING    TONS       LBS      KG
   #1      2.09      4182    1897
   #2      3.54      7081    3212
   #3      5.06     10110    4586

CH   GAUGE    #1 uS   #2 uS   #3 uS

 0   4C-AZ     -1.3    -2.0    -2.8
 1   1A-FZ      -.4     -.9    -1.3
 2   1B-FZ     -1.3    -2.3    -3.3
 3   1C-FZ     -1.1    -1.9    -2.8
 5   1D-FZ       .5      .9     1.2

 7   2E-FZ      1.8     3.0     4.2
10   1E-FZ      1.2     2.0     2.8
11   1F-FZ      1.2     2.1     2.8
12   1G-FZ      1.0     1.9     2.5
14   3E-FZ       .1      .7      .7

15   3F-FZ       .4      .7     1.2
16   2A-FZ      -.9    -1.4    -2.0
17   2B-FZ     -3.0    -4.8    -6.8
18   2C-FZ      3.7     6.3     8.9
19   2D-FZ       .9     1.5     2.1

21   4A-FZ       .3      .4      .6
22   4B-FZ      -.1     -.2     -.3
24   2F-FZ      1.8     2.9     4.2
25   2G-FZ      1.2     2.2     3.1
27   3A-FZ      -.3     -.9    -1.3

28   3B-FZ     -1.3    -2.1    -3.0
29   3C-FZ     -1.5    -2.5    -3.6
30   3D-FZ       .2      .3      .6
32   3G-FZ      1.8     2.3     3.9
37   5E-FZ       .8     2.6     2.9

39   5F-FZ       .4     1.0     1.7
42   5A-FZ      -.1     -.2     -.4
43   5B-FZ      -.1     -.2     -.3
46   5C-FZ      -.1     -.2     -.2
47   5G-FZ       .4      .9     1.7

48   5D-FZ       .7     1.2     1.9
50   5F-AZ       .2      .4      .6
51   4F-FZ      4.0     6.0     8.9
52   4G-FZ      3.8     5.6     8.3
56   4E-FZ      4.6     8.7    11.8

60   4C-FZ      -.1     -.2      .1
61   4D-FZ     -7.7   -11.8   -17.6

SEP-07-89   16:46   PULLED FROM
UPPER PADEYE #3
```

```
FILE: E-2S-1

READING    TONS       LBS      KG
   #4      3.42      6832    3099
   #5      2.08      4159    1887
   #6      -.00        -6      -3

CH   GAUGE    #4 uS   #5 uS   #6 uS

 0   4C-AZ     -1.8    -1.0      .2
 1   1A-FZ      -.9     -.5      .2
 2   1B-FZ     -2.2    -1.3      .2
 3   1C-FZ     -1.8    -1.0      .1
 5   1D-FZ       .9      .6      .2

 7   2E-FZ      2.9     1.6     -.1
10   1E-FZ      2.1     1.3      .2
11   1F-FZ      1.9     1.3      .1
12   1G-FZ      1.8     1.2      .1
14   3E-FZ       .6      .3      .2

15   3F-FZ       .9      .5      .1
16   2A-FZ     -1.3     -.7      .2
17   2B-FZ     -4.7    -2.9     0.0
18   2C-FZ      6.4     4.3     1.1
19   2D-FZ      1.5      .8     -.1

21   4A-FZ       .5      .5      .3
22   4B-FZ      -.1     0.0      .4
24   2F-FZ      2.9     1.8      .1
25   2G-FZ      2.1     1.3     0.0
27   3A-FZ      -.7     -.2      .7

28   3B-FZ     -2.0    -1.2      .1
29   3C-FZ     -2.3    -1.3      .2
30   3D-FZ       .5      .1     -.1
32   3G-FZ      2.3     1.9     1.5
37   5E-FZ      2.6     1.0      .2

39   5F-FZ       .7      .4     0.0
42   5A-FZ      -.2     -.2      .1
43   5B-FZ      -.2     -.1     0.0
46   5C-FZ      -.2     -.1      .4
47   5G-FZ      1.1      .4      .1

48   5D-FZ      1.2      .9     0.0
50   5F-AZ       .4      .2     0.0
51   4F-FZ      5.2     2.1    -2.9
52   4G-FZ      5.5     3.9      .1
56   4E-FZ      8.2     4.6      .3

60   4C-FZ       .3     -.4    -1.0
61   4D-FZ    -11.8    -7.6     0.0

SEP-07-89   16:46   PULLED FROM
UPPER PADEYE #3
```

```
FILE: E-4S-1

READING    TONS       LBS       KG
   #1      2.14      4284     1943
   #2      3.60      7194     3263
   #3      4.74      9472     4296

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   4C-AZ        .4      .7      .9
 1   1A-FZ       -.4     -.7    -1.0
 2   1B-FZ      -1.0    -1.7    -2.1
 3   1C-FZ      -1.0    -1.7    -2.2
 5   1D-FZ        .4      .6      .9

 7   2E-FZ       1.0     1.6     2.1
10   1E-FZ        .3      .5      .8
11   1F-FZ        .5      .8     1.0
12   1G-FZ        .4      .8     1.2
14   3E-FZ      -1.9    -3.2    -4.3

15   3F-FZ        .1      .1      .2
16   2A-FZ       -.9    -1.5    -1.9
17   2B-FZ      -2.3    -3.9    -5.1
18   2C-FZ       2.7     4.7     6.2
19   2D-FZ        .6     1.0     1.3

21   4A-FZ       -.1     -.2     -.2
22   4B-FZ       -.8    -1.4    -1.9
24   2F-FZ       1.1     1.8     2.4
25   2G-FZ        .6     1.3     1.7
27   3A-FZ      -1.0    -1.6    -2.0

28   3B-FZ      -1.6    -2.9    -3.7
29   3C-FZ      -1.7    -2.8    -3.7
30   3D-FZ      -1.0    -1.5    -2.1
32   3G-FZ       2.8     3.7     3.9
37   5E-FZ       2.1     3.9     4.9

39   5F-FZ       1.7     3.9     5.5
42   5A-FZ      -1.1    -1.2    -1.4
43   5B-FZ      -1.6    -1.9    -2.1
46   5C-FZ       -.8    -1.7    -2.3
47   5G-FZ       2.0     2.2     3.1

48   5D-FZ        .4      .5      .7
50   5F-AZ        .1      .4      .7
51   4F-FZ       7.7    13.6    17.0
52   4G-FZ       5.6    11.3    13.5
56   4E-FZ       7.6    12.0    17.0

60   4C-FZ       -.4     -.8    -1.5
61   4D-FZ     -12.1   -20.2   -26.5

SEP-07-89    17:36
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```
FILE: E-4S-1

READING    TONS       LBS       KG
   #4      3.36      6725     3050
   #5      2.11      4216     1912
   #6      -.00        -6       -3

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   4C-AZ        .7      .5      .1
 1   1A-FZ       -.8     -.3     0.0
 2   1B-FZ      -1.5     -.9      .1
 3   1C-FZ      -1.5     -.9     0.0
 5   1D-FZ        .7      .5      .1

 7   2E-FZ       1.6     1.1      .1
10   1E-FZ        .5      .4      .2
11   1F-FZ        .8      .5      .2
12   1G-FZ        .8      .5     0.0
14   3E-FZ      -3.2    -1.8      .2

15   3F-FZ        .1      .1       1
16   2A-FZ      -1.3     -.8      .1
17   2B-FZ      -3.7    -2.3      .1
18   2C-FZ       4.8     3.4     1.0
19   2D-FZ        .9      .6     -.1

21   4A-FZ       -.1      .1       4
22   4B-FZ      -1.3     -.7      .4
24   2F-FZ       1.8     1.2      .1
25   2G-FZ       1.2      .8      .1
27   3A-FZ      -1.3     -.9     -.1

28   3B-FZ      -2.6    -1.6     -.1
29   3C-FZ      -2.6    -1.6      .2
30   3D-FZ      -1.5    -1.0     0.0
32   3G-FZ       3.6     2.5      .1
37   5E-FZ       3.9     3.3      .1

39   5F-FZ       3.8     3.1      .1
42   5A-FZ      -1.2     -.5      .3
43   5B-FZ      -1.9    -1.6     0.0
46   5C-FZ      -1.5     -.4      .1
47   5G-FZ       2.2     1.9      .1

48   5D-FZ        .6      .4     0.0
50   5F-AZ        .4      .2      .1
51   4F-FZ      13.4     7.8      .1
52   4G-FZ      11.0     5.8     0.0
56   4E-FZ      11.8     7.8     0.0

60   4C-FZ      -1.8     -.2      .2
61   4D-FZ     -19.6   -12.3      .1

SEP-07-89    17:36
```

```
FILE: F-1L-1

READING    TONS        LBS       KG
   #4      3.34       6674     3027
   #5      2.07       4142     1879
   #6       .00          6        3

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   4C-AZ         .8      .4     0.0
 1   1A-FY       -5.5    -3.4     0.0
 2   1B-FY       -5.7    -3.5     -.2
 3   1C-FY       -6.6    -4.1     -.1
 5   1D-FY       24.6    14.5    -2.7

 7   2E-FY        2.8     1.7      .1
10   1E-FY       29.0    18.0      .1
11   1F-FY      -26.0   -16.3      .2
12   1G-FY      -27.8   -17.1      .2
14   3E-FY        -.5     -.3      .1

15   3F-FY        -.2     -.1      .1
16   2A-FY         .1     0.0     -.1
17   2B-FY        3.5     2.1     -.1
18   2C-FY        -.9     -.2      .9
19   2D-FY        2.6     1.6     0.0

21   4A-FY         .5      .4      .3
22   4B-FY        1.7     1.1      .1
24   2F-FY         .6      .5      .2
25   2G-FY       -1.4     -.8      .2
27   3A-FY        1.0      .6      .1

28   3B-FY        2.3     1.3     0.0
29   3C-FY        2.9     1.8     -.1
30   3D-FY        -.7     -.4      .1
32   3G-FY        -.7     -.1      .4
37   5E-FY         .6      .7      .7

39   5F-FY        0.0      .1      .4
42   5A-FY        1.1      .2     0.0
43   5B-FY        -.1     -.1      .3
46   5C-FY        1.5      .6     0.0
47   5G-FY        -.4     -.1      .1

48   5D-FY         .2      .1     0.0
50   5F-AZ        0.0     0.0      .1
51   4F-FY        -.5     -.5     1.0
52   4G-FY        -.4     -.2      .7
56   4E-FY         .2      .1      .1

60   4C-FY        1.3     1.1      .1
61   4D-FY        -.6     -.6     0.0

 SEP-08-89   12:04
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```
FILE: F-1L-1

READING    TONS        LBS       KG
   #1      2.03       4058     1841
   #2      3.52       7047     3197
   #3      4.80       9607     4358

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   4C-AZ         .5      .8     1.1
 1   1A-FY       -3.3    -5.8    -7.9
 2   1B-FY       -3.4    -6.0    -8.1
 3   1C-FY       -4.0    -7.0    -9.6
 5   1D-FY       15.3    27.0    36.6

 7   2E-FY        1.6     2.8     3.8
10   1E-FY       17.7    30.8    41.9
11   1F-FY      -16.1   -27.8   -37.5
12   1G-FY      -16.9   -29.6   -40.2
14   3E-FY        -.2     -.4     -.7

15   3F-FY        -.2     -.2     -.4
16   2A-FY        0.0      .1      .1
17   2B-FY        2.1     3.6     5.0
18   2C-FY        -.7    -1.2    -1.7
19   2D-FY        1.6     2.7     3.7

21   4A-FY         .4      .5      .7
22   4B-FY        1.0     1.7     2.4
24   2F-FY         .3      .5      .8
25   2G-FY       -1.0    -1.7    -2.3
27   3A-FY         .6     1.0     1.3

28   3B-FY        1.3     2.4     3.3
29   3C-FY        1.8     3.1     4.3
30   3D-FY        -.3     -.7    -1.0
32   3G-FY        -.7    -1.1    -1.0
37   5E-FY         .5      .6      .5

39   5F-FY        0.0     0.0     0.0
42   5A-FY         .2     1.2     1.8
43   5B-FY        -.1     -.2     -.2
46   5C-FY         .6     2.3     2.7
47   5G-FY        -.2     -.6     -.6

48   5D-FY        0.0     0.0     0.0
50   5F-AZ        0.0     -.1     -.1
51   4F-FY        -.5     -.6     -.9
52   4G-FY        -.2     -.4     -.6
56   4E-FY         .1      .1      .1

60   4C-FY         .6     1.3     1.6
61   4D-FY        -.6     -.6     -.7

 SEP-08-89   12:04
```

```
FILE: F-2L-1

READING    TONS        LBS       KG
   #1      1.97       3945     1789
   #2      3.59       7183     3258
   #3      4.93       9867     4476

CH  GAUGE      #1 uS   #2 uS   #3 uS

 0  4C-AZ         .9     1.5     2.0
 1  1A-FY        -.2     -.3     -.3
 2  1B-FY         .2      .5      .7
 3  1C-FY        1.8     3.2     4.3
 5  1D-FY         .8      .9     1.0

 7  2E-FY       12.1    22.1    30.5
10  1E-FY       -2.1    -3.7    -5.0
11  1F-FY       -5.4    -9.8   -13.3
12  1G-FY       -6.1   -10.9   -14.8
14  3E-FY        1.6     2.9     4.1

15  3F-FY         .3      .7      .9
16  2A-FY       -2.2    -4.0    -5.5
17  2B-FY        -.9    -1.7    -2.3
18  2C-FY       -1.1    -1.8    -2.6
19  2D-FY        8.9    16.4    22.7

21  4A-FY         .4      .7      .9
22  4B-FY        1.0     1.9     2.5
24  2F-FY      -19.6   -35.1   -48.1
25  2G-FY      -18.4   -33.1   -45.5
27  3A-FY         .3      .6      .9

28  3B-FY        1.3     2.3     3.2
29  3C-FY        1.3     2.3     3.1
30  3D-FY        1.0     1.9     2.6
32  3G-FY        -.4     -.9    -1.5
37  5E-FY        -.1     -.1     0.0

39  5F-FY        -.1     -.2     -.2
42  5A-FY         .7     1.8     2.3
43  5B-FY        -.1     -.1     -.2
46  5C-FY        1.2     3.2     3.4
47  5G-FY        -.1     -.2     -.3

48  5D-FY         .1      .2      .2
50  5F-AZ        -.1     -.2     -.4
51  4F-FY        -.1     -.1     -.2
52  4G-FY        0.0     0.0     0.0
56  4E-FY        -.6     -.6     -.7

60  4C-FY         .4     1.2     1.9
61  4D-FY        -.2     -.5     -.6

SEP-08-89   11:55   PULLED FROM
UPPER PADEYE #3
```

```
FILE: F-2L-1

READING    TONS        LBS       KG
   #4      3.41       6821     3094
   #5      1.98       3956     1794
   #6      -.01        -23      -10

CH  GAUGE      #4 uS   #5 uS   #6 uS

 0  4C-AZ        1.4      .9      .1
 1  1A-FY        -.2     -.1      .1
 2  1B-FY         .4      .3      .1
 3  1C-FY        3.0     1.8      .1
 5  1D-FY        -.3    -2.5    -5.2

 7  2E-FY       20.9    12.2      .1
10  1E-FY       -3.4    -2.0      .1
11  1F-FY       -9.1    -5.3      .2
12  1G-FY      -10.1    -5.8      .2
14  3E-FY        2.9     1.7     0.0

15  3F-FY         .6      .4      .1
16  2A-FY       -3.7    -2.1      .1
17  2B-FY       -1.7    -1.0     -.2
18  2C-FY       -1.3     -.4     1.1
19  2D-FY       15.4     8.8     -.1

21  4A-FY         .7      .6      .2
22  4B-FY        1.6      .7     -.3
24  2F-FY      -33.4   -19.9      .2
25  2G-FY      -31.2   -18.4      .1
27  3A-FY         .7      .5      .2

28  3B-FY        2.1     1.3      .1
29  3C-FY        2.1     1.1     -.2
30  3D-FY        1.8     1.1     0.0
32  3G-FY        -.8     -.4     0.0
37  5E-FY        -.2     -.2     -.4

39  5F-FY        -.2     0.0      .2
42  5A-FY        1.6      .7      .1
43  5B-FY        -.1     -.1     0.0
46  5C-FY        3.2     1.4      .5
47  5G-FY        -.2     -.2     0.0

48  5D-FY         .2      .1      .1
50  5F-AZ        -.2     -.1     0.0
51  4F-FY        -.1     0.0      .1
52  4G-FY        0.0     0.0     0.0
56  4E-FY        -.6     -.6      .1

60  4C-FY        1.5      .5      .1
61  4D-FY        -.5     -.2      .2

SEP-08-89   11:55   PULLED FROM
UPPER PADEYE #3
```

```
FILE: F-3L-1

READING    TONS       LBS       KG
   #4      3.51       7019      3184
   #5      2.07       4148      1882
   #6      -.08       -153       -69

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   4C-AZ       1.8     1.0      .1
 1   1A-FY        .9      .5      .1
 2   1B-FY       1.8     1.1      .1
 3   1C-FY       1.9     1.2      .2
 5   1D-FY      -2.9    -2.5    -2.1

 7   2E-FY      -4.0    -2.3      .2
10   1E-FY      -1.3     -.7      .2
11   1F-FY       -.4     -.2      .2
12   1G-FY        .4      .5      .5
14   3E-FY      23.6    14.1     -.1

15   3F-FY     -35.0   -21.6      .3
16   2A-FY       -.5     -.3     -.1
17   2B-FY       2.6     1.5     -.1
18   2C-FY      -1.9     -.8      .9
19   2D-FY       1.5      .9      .1

21   4A-FY        .5      .4      .1
22   4B-FY       1.6      .7     -.5
24   2F-FY      -8.6    -5.1      .2
25   2G-FY     -10.0    -5.9      .3
27   3A-FY      -2.7    -1.5      .1

28   3B-FY      -2.7    -1.4      .6
29   3C-FY      -9.0    -5.4      .1
30   3D-FY      20.5    12.3     0.0
32   3G-FY     -29.3   -17.3      .4
37   5E-FY       0.0     0.0      .1

39   5F-FY       0.0     0.0     0.0
42   5A-FY       1.9     1.8     0.0
43   5B-FY      -1.8     -.2     -.1
46   5C-FY       2.0     1.5     0.0
47   5G-FY       0.0     0.0     0.0

48   5D-FY       -.4     -.2     0.0
50   5F-AZ       -.9     -.1      .5
51   4F-FY       2.4      .7      .2
52   4G-FY       -.1     -.1      .1
56   4E-FY       3.9     1.6     0.0

60   4C-FY       3.0     2.1      .7
61   4D-FY        .3      .3      .1

SEP-08-89    11:17
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```
FILE: F-3L-1

READING    TONS       LBS       KG
   #1      2.17       4335      1966
   #2      3.35       6697      3038
   #3      4.60       9206      4176

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   4C-AZ       1.0     1.6     2.3
 1   1A-FY        .6      .9     1.2
 2   1B-FY       1.1     1.7     2.3
 3   1C-FY       1.2     1.8     2.5
 5   1D-FY      -1.5    -2.1    -3.2

 7   2E-FY      -2.6    -4.0    -5.5
10   1E-FY       -.8    -1.3    -1.8
11   1F-FY       -.3     -.5     -.6
12   1G-FY        .1      .3      .5
14   3E-FY      14.6    22.9    31.3

15   3F-FY     -21.5   -33.4   -45.2
16   2A-FY       -.3     -.4     -.5
17   2B-FY       1.5     2.4     3.4
18   2C-FY      -1.4    -2.0    -2.8
19   2D-FY        .9     1.3     1.8

21   4A-FY        .2      .4      .6
22   4B-FY       1.1     1.6     2.2
24   2F-FY      -5.3    -8.3   -11.3
25   2G-FY      -6.2    -9.6   -13.1
27   3A-FY      -1.7    -2.6    -3.6

28   3B-FY      -1.7    -2.8    -3.8
29   3C-FY      -5.5    -8.7   -11.8
30   3D-FY      12.6    19.9    27.1
32   3G-FY     -18.3   -29.0   -39.9
37   5E-FY       -.1     -.1     0.0

39   5F-FY       0.0     0.0     0.0
42   5A-FY       1.8     1.9     2.0
43   5B-FY      -1.6    -1.7    -1.8
46   5C-FY       1.4     1.9     3.9
47   5G-FY       0.0     0.0     0.0

48   5D-FY       -.2     -.5    -1.0
50   5F-AZ       -.5    -1.0    -1.0
51   4F-FY        .7     1.3     2.7
52   4G-FY       -.1     -.1     -.1
56   4E-FY       1.5     3.8     4.2

60   4C-FY       2.0     2.3     3.7
61   4D-FY        .2      .3      .6

SEP-08-89    11:17
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```
FILE: F-4L-1

READING     TONS        LBS        KG
   #1       1.94       3888      1764
   #2       3.47       6934      3145
   #3       4.99       9980      4527

CH   GAUGE     #1 uS   #2 uS   #3 uS

 0   4C-AZ      -3.5    -6.1    -8.7
 1   1A-FY        .4      .5      .7
 2   1B-FY        .7     1.2     1.6
 3   1C-FY        .6     1.0     1.5
 5   1D-FY       -.1     -.7    -1.2

 7   2E-FY       -.8    -1.5    -2.2
10   1E-FY       -.4     -.7    -1.2
11   1F-FY       -.5     -.8    -1.3
12   1G-FY       -.5    -1.0    -1.5
14   3E-FY      -2.1    -3.5    -4.9

15   3F-FY      -4.6    -7.9   -11.2
16   2A-FY        .2      .4      .5
17   2B-FY       1.5     2.6     3.7
18   2C-FY      -1.0    -1.7    -2.5
19   2D-FY       -.9    -1.5    -2.2

21   4A-FY       -.8    -1.4    -2.1
22   4B-FY       -.8    -1.3    -1.9
24   2F-FY       -.4     -.6     -.9
25   2G-FY       0.0      .1     0.0
27   3A-FY        .1      .1      .1

28   3B-FY        .9     1.6     2.3
29   3C-FY       1.2     2.1     3.0
30   3D-FY       1.2     2.3     3.2
32   3G-FY      -4.7    -8.6   -12.4
37   5E-FY        .5     2.2     3.6

39   5F-FY       0.0     0.0      .1
42   5A-FY       1.4     1.7     1.9
43   5B-FY       0.0     -.9    -1.6
46   5C-FY        .3     1.2     1.5
47   5G-FY      -2.0    -2.4    -3.4

48   5D-FY        .6     1.7     2.5
50   5F-AZ      -2.9    -4.4    -7.7
51   4F-FY     -18.5   -31.6   -45.6
52   4G-FY     -19.3   -31.9   -46.3
56   4E-FY      16.1    28.9    41.3

60   4C-FY      -2.3    -5.4    -8.2
61   4D-FY       8.2    15.6    21.6

SEP-08-89    11:07
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```
FILE: F-4L-1

READING     TONS        LBS        KG
   #4       3.30       6601      2994
   #5       1.93       3854      1748
   #6        .01         17         8

CH   GAUGE     #4 uS   #5 uS   #6 uS

 0   4C-AZ      -5.8    -3.4      .1
 1   1A-FY        .6      .4      .2
 2   1B-FY       1.2      .8      .2
 3   1C-FY       1.0      .6      .1
 5   1D-FY      -1.0     -.5      .4

 7   2E-FY      -1.4     -.8      .2
10   1E-FY       -.7     -.4      .1
11   1F-FY       -.8     -.5      .1
12   1G-FY       -.9     -.4      .1
14   3E-FY      -3.3    -1.9      .1

15   3F-FY      -7.4    -4.4      .1
16   2A-FY        .4      .2      .1
17   2B-FY       2.4     1.5      .1
18   2C-FY      -1.4     -.5      .8
19   2D-FY      -1.4     -.7      .2

21   4A-FY      -1.3     -.7      .2
22   4B-FY       -.7      .2      .7
24   2F-FY       -.6     -.3     0.0
25   2G-FY       0.0     0.0      .1
27   3A-FY        .1      .2      .2

28   3B-FY       1.6      .9      .1
29   3C-FY       2.0     1.2      .1
30   3D-FY       2.2     1.4      .2
32   3G-FY      -8.3    -4.7      .1
37   5E-FY       2.2      .6     0.0

39   5F-FY        .1     0.0     0.0
42   5A-FY       1.8     1.4     -.1
43   5B-FY      -1.5     0.0      .1
46   5C-FY        .9      .3     0.0
47   5G-FY      -2.4    -2.0     0.0

48   5D-FY       1.3      .7      .1
50   5F-AZ      -4.3    -2.9      .2
51   4F-FY     -29.8   -18.3      .1
52   4G-FY     -31.3   -18.5     0.0
56   4E-FY      27.5    16.0     0.0

60   4C-FY      -5.2    -2.0      .4
61   4D-FY      13.8     8.2     0.0

SEP-08-89    11:07
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```
FILE: F-5L-1

READING    TONS        LBS        KG
   #4      3.35        6708     3043
   #5      2.02        4035     1830
   #6      -.01         -11       -5

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   4C-AZ       2.6      1.5      -.1
 1   1A-FY        .4       .2       .1
 2   1B-FY        .6       .4      -.2
 3   1C-FY        .8       .5      -.1
 5   1D-FY      -1.3      -.9     -1.2

 7   2E-FY      -1.4     -1.1      -.5
10   1E-FY      -1.2     -1.0      -.6
11   1F-FY      -1.2      -.9      -.6
12   1G-FY      -1.0      -.8      -.4
14   3E-FY      -1.6     -1.1      -.3

15   3F-FY       -.7      -.6      -.3
16   2A-FY        .1      0.0      -.1
17   2B-FY       1.4       .7      -.3
18   2C-FY       -.8      -.1      1.0
19   2D-FY      -1.2      -.9      -.4

21   4A-FY        .2       .2       .1
22   4B-FY       1.4       .8       .1
24   2F-FY      -1.4     -1.0      -.5
25   2G-FY      -1.6     -1.2      -.5
27   3A-FY        .9       .6      0.0

28   3B-FY       1.7      1.0      -.1
29   3C-FY       1.6       .9      -.3
30   3D-FY      -1.9     -1.3      -.2
32   3G-FY       -.2      -.2      -.4
37   5E-FY      27.0     15.6     -1.3

39   5F-FY     -27.2    -16.0      -.2
42   5A-FY      -1.7     -1.4      0.0
43   5B-FY       5.2      2.5       .1
46   5C-FY     -10.4     -7.0      -.1
47   5G-FY     -27.2    -17.5     -1.7

48   5D-FY      20.9     12.8     -1.1
50   5F-AZ     -28.0    -17.4     -1.0
51   4F-FY      -8.4     -6.2      -.2
52   4G-FY     -11.4     -7.4      -.2
56   4E-FY      -3.9     -3.5      -.4

60   4C-FY       1.7       .5       .2
61   4D-FY       1.8      1.7      -.2

SEP-08-89    10:33
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```
FILE: F-5L-1

READING    TONS        LBS        KG
   #1      1.85        3696     1676
   #2      3.53        7070     3207
   #3      4.98        9969     4522

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   4C-AZ       1.3      2.7      3.8
 1   1A-FY        .2       .5       .5
 2   1B-FY        .4       .7      1.0
 3   1C-FY        .5       .9      1.2
 5   1D-FY       -.7     -1.0     -1.3

 7   2E-FY       -.5     -1.3     -1.9
10   1E-FY       -.5     -1.0     -1.4
11   1F-FY       -.4      -.9     -1.3
12   1G-FY       -.5     -1.0     -1.3
14   3E-FY       -.8     -1.5     -2.2

15   3F-FY       -.3      -.6      -.9
16   2A-FY        .1       .1       .1
17   2B-FY        .6      1.4      2.1
18   2C-FY       -.7     -1.2     -1.7
19   2D-FY       -.5     -1.1     -1.5

21   4A-FY       0.0       .1       .1
22   4B-FY        .8      1.4      2.1
24   2F-FY       -.6     -1.2     -1.8
25   2G-FY       -.8     -1.5     -2.1
27   3A-FY        .6       .9      1.3

28   3B-FY       1.0      1.8      2.6
29   3C-FY       1.0      1.8      2.6
30   3D-FY      -1.0     -1.9     -2.7
32   3G-FY       -.1      -.2      -.2
37   5E-FY      14.2     28.5     40.5

39   5F-FY     -15.6    -27.5    -39.0
42   5A-FY      -1.2     -1.7     -3.6
43   5B-FY       2.3      5.4      6.1
46   5C-FY      -6.1    -11.0    -15.0
47   5G-FY     -15.4    -27.6    -39.7

48   5D-FY      10.9     22.2     32.4
50   5F-AZ     -15.3    -28.8    -42.1
51   4F-FY      -4.3     -8.6    -14.0
52   4G-FY      -6.3    -11.5    -15.7
56   4E-FY      -2.7     -3.9     -6.3

60   4C-FY        .5      1.8      2.2
61   4D-FY       1.8      1.9      2.1

SEP-08-89    10:33
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```
FILE: F-6L-1

READING    TONS        LBS      KG
   #4      3.40       6799    3084
   #5      1.94       3877    1759
   #6      -.01        -11      -5

CH  GAUGE    #4 uS   #5 uS   #6 uS

 0  4C-AZ      1.5      .9      .1
 1  1A-FY      0.0     0.0     0.0
 2  1B-FY      1.0      .9      .7
 3  1C-FY       .5      .3      .1
 5  1D-FY       .4      .7      .6

 7  2E-FY      -.4     -.2      .1
10  1E-FY      -.2     -.1      .1
11  1F-FY      0.0      .1      .2
12  1G-FY      -.1      .1      .2
14  3E-FY      -.5     -.2      .1

15  3F-FY      -.5     -.2      .2
16  2A-FY      -.1     -.1     0.0
17  2B-FY       .7      .4     -.1
18  2C-FY      -.5     0.0      .7
19  2D-FY      -.4     -.2      .1

21  4A-FY       .4      .2      .2
22  4B-FY       .8      .6      .2
24  2F-FY      -.3     -.1      .2
25  2G-FY      -.4     -.2      .1
27  3A-FY       .3      .2      .1

28  3B-FY       .7      .5     0.0
29  3C-FY       .7      .4     0.0
30  3D-FY      -.6     -.3     0.0
32  3G-FY      -.2     -.1      .1
37  5E-FY     -1.8    -1.3      .2

39  5F-FY     -3.1    -2.2     0.0
42  5A-FY       .3     0.0     0.0
43  5B-FY      -.4     -.4     -.1
46  5C-FY       .5      .4      .2
47  5G-FY     -2.3    -1.0     1.0

48  5D-FY      -.1     0.0      .1
50  5F-AZ       .4      .4      .3
51  4F-FY      -.3     -.1      .1
52  4G-FY      -.4     -.2      .1
56  4E-FY      -.7     -.4     0.0

60  4C-FY      1.2     1.0      .7
61  4D-FY      -.2     -.1     0.0

SEP-08-89     10:20
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```
FILE: F-6L-1

READING    TONS        LBS      KG
   #1      2.50       4990    2263
   #2      3.70       7392    3353
   #3      5.41      10817    4906

CH  GAUGE    #1 uS   #2 uS   #3 uS

 0  4C-AZ      1.2     1.6     2.4
 1  1A-FY      -.1     0.0      .1
 2  1B-FY       .3      .6     1.2
 3  1C-FY       .3      .4      .7
 5  1D-FY      0.0      .2      .2

 7  2E-FY      -.4     -.5     -.7
10  1E-FY      -.2     -.3     -.4
11  1F-FY      -.1     -.1     -.3
12  1G-FY      -.2     -.2     -.2
14  3E-FY      -.4     -.6     -.8

15  3F-FY      -.4     -.6     -.8
16  2A-FY      -.1     -.1     -.1
17  2B-FY       .7     1.0     1.2
18  2C-FY      -.6     -.8    -1.1
19  2D-FY      -.3     -.4     -.7

21  4A-FY       .2      .4      .5
22  4B-FY       .6      .8     1.3
24  2F-FY      -.3     -.4     -.5
25  2G-FY      -.3     -.5     -.6
27  3A-FY       .1      .3      .4

28  3B-FY       .5      .7     1.1
29  3C-FY       .5      .8     1.1
30  3D-FY      -.5     -.7     -.9
32  3G-FY      -.2     -.2     -.2
37  5E-FY     -1.4    -2.0    -2.6

39  5F-FY     -2.3    -3.3    -3.7
42  5A-FY       .2      .3      .6
43  5B-FY      -.4     -.4     -.4
46  5C-FY       .4      .6      .6
47  5G-FY     -2.0    -2.4    -3.3

48  5D-FY      -.1     -.1     -.3
50  5F-AZ       .2      .3      .5
51  4F-FY      -.3     -.3     -.5
52  4G-FY      -.4     -.6    -1.4
56  4E-FY      -.4     -.7    -2.0

60  4C-FY      1.0     1.2     1.5
61  4D-FY      -.1     -.2     -.4

SEP-08-89     10:20
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```
FILE: F-1U-1

READING    TONS       LBS       KG
   #4      3.09      6171     2799
   #5      2.09      4171     1892
   #6       .03        62       28

CH   GAUGE     #4 uS    #5 uS    #6 uS

 0   4C-AZ        .3       .2      -.1
 1   1A-FY      22.1     14.6       .4
 2   1B-FY      12.9      9.0       .2
 3   1C-FY     -12.7     -8.4      0.0
 5   1D-FY      -4.6     -5.6     -6.4

 7   2E-FY       -.3      -.2       .2
10   1E-FY        .3       .2      0.0
11   1F-FY        .6       .5       .2
12   1G-FY        .7       .4       .1
14   3E-FY       -.3      -.2      -.1

15   3F-FY       -.4      -.2       .1
16   2A-FY        .8        5       .1
17   2B-FY       3.1      2.1      -.1
18   2C-FY       1.8      1.6      1.2
19   2D-FY       -.4      -.2      -.1

21   4A-FY        .5       .4       .3
22   4B-FY        .6       .5      -.1
24   2F-FY       -.4      -.2       .2
25   2G-FY       -.6      -.4       .2
27   3A-FY        .6       .5       .2

28   3B-FY       1.0       .5      0.0
29   3C-FY       1.0       .6      -.2
30   3D-FY       -.2      -.1       .1
32   3G-FY      -1.7     -1.5      0.0
37   5E-FY        .1       .2       .3

39   5F-FY       -.1       .1       .3
42   5A-FY       1.0       .8       .1
43   5B-FY        .2       .2       .2
46   5C-FY        .4       .3      0.0
47   5G-FY       -.2      -.2       .1

48   5D-FY       -.1       .1       .1
50   5F-AZ       -.2      -.2      0.0
51   4F-FY      -1.5      -.7      -.1
52   4G-FY       -.6      -.2       .2
56   4E-FY       -.2      -.1      0.0

60   4C-FY        .4       .4       .2
61   4D-FY       -.4      -.4      0.0

SEP-08-89  12:20   LAST F CAL
```

```
FILE: F-1U-1

READING    TONS       LBS       KG
   #1      2.08      4165     1889
   #2      3.53      7070     3207
   #3      4.01      8014     3635

CH   GAUGE     #1 uS    #2 uS    #3 uS

 0   4C-AZ        .2       .4       .4
 1   1A-FY      14.7     25.2     28.4
 2   1B-FY       9.2     14.7     16.1
 3   1C-FY      -8.4    -14.6    -16.4
 5   1D-FY      -1.6     -2.1     -3.8

 7   2E-FY       -.2      -.5      -.4
10   1E-FY        .1       .4       .4
11   1F-FY        .4       .6       .7
12   1G-FY        .4       .7       .9
14   3E-FY       -.2      -.2      -.3

15   3F-FY       -.3      -.4      -.4
16   2A-FY        .4       .8       .9
17   2B-FY       2.2      3.7      4.1
18   2C-FY        .9      1.4      1.8
19   2D-FY       -.2      -.4      -.4

21   4A-FY        .2       .4       .5
22   4B-FY        .5       .8      1.1
24   2F-FY       -.4      -.7      -.7
25   2G-FY       -.5      -.8      -.9
27   3A-FY        .4       .6       .7

28   3B-FY        .7      1.2      1.2
29   3C-FY        .7      1.2      1.4
30   3D-FY       -.1      -.1      -.3
32   3G-FY      -1.5     -1.8     -1.7
37   5E-FY       -.2      -.2       .1

39   5F-FY       -.2      -.2      -.2
42   5A-FY        .9      1.2      1.2
43   5B-FY        .1       .1       .1
46   5C-FY        .3       .4       .5
47   5G-FY       -.3      -.7      -.5

48   5D-FY       -.1      -.1      -.1
50   5F-AZ       -.2      -.2      -.2
51   4F-FY      -1.5     -1.6     -1.6
52   4G-FY       -.3      -.9      -.8
56   4E-FY       -.1      -.2      -.3

60   4C-FY        .4       .4       .5
61   4D-FY       -.3      -.6     -1.0

SEP-08-89  12:20   LAST F CAL
```

```
FILE: F-2U-1

READING    TONS        LBS      KG
   #4      3.23       6454    2927
   #5      2.06       4120    1869
   #6       .08        170      77

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  4C-AZ        .9      .7      .3
 1  1A-FY       3.0     1.9     -.1
 2  1B-FY       2.6     1.8     -.1
 3  1C-FY      -6.4    -4.0      .2
 5  1D-FY      -4.1    -4.6    -4.7

 7  2E-FY       -.7     -.2      .4
10  1E-FY       -.6     -.2      .4
11  1F-FY       -.7     -.2      .4
12  1G-FY       -.5     -.2      .4
14  3E-FY       -.1      .1      .2

15  3F-FY       -.5     -.2      .2
16  2A-FY       6.9     4.4      .3
17  2B-FY      25.0    15.9     -.1
18  2C-FY      15.1    10.0     1.5
19  2D-FY       -.5     -.3      .2

21  4A-FY       1.1     1.0      .8
22  4B-FY       1.7      .6     -.6
24  2F-FY       -.1      .1      .5
25  2G-FY       -.1      .2      .7
27  3A-FY       2.4     1.6      .5

28  3B-FY       5.4     4.4     2.6
29  3C-FY       1.2      .9      .2
30  3D-FY       -.2      .1      .3
32  3G-FY       -.7     -.4      .1
37  5E-FY       -.5      .3     1.7

39  5F-FY       0.0      .1      .9
42  5A-FY        .5      .4      .4
43  5B-FY       0.0      .1      .4
46  5C-FY       1.2     1.1      .1
47  5G-FY       -.1     0.0      .1

48  5D-FY       0.0     0.0      .2
50  5F-AZ       -.7     0.0      .4
51  4F-FY       -.9     -.1      .3
52  4G-FY       -.4     -.2     0.0
56  4E-FY       -.2     0.0      .2

60  4C-FY       3.0     2.3      .8
61  4D-FY       -.3     -.2     0.0

SEP-08-89   11:36  PULLED FROM
UPPER PADEYE #3
```

```
FILE: F-2U-1

READING    TONS        LBS      KG
   #1      1.97       3939    1787
   #2      3.50       6996    3174
   #3      4.86       9726    4412

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  4C-AZ        .4      .9     1.2
 1  1A-FY       1.7     3.0     4.3
 2  1B-FY       1.5     2.6     3.8
 3  1C-FY      -4.0    -6.9    -9.5
 5  1D-FY      -2.1    -3.0    -4.1

 7  2E-FY       -.2     -.6    -1.0
10  1E-FY       -.4     -.8    -1.2
11  1F-FY       -.4     -.8    -1.1
12  1G-FY       -.3     -.5    -1.0
14  3E-FY       -.2     -.3     -.4

15  3F-FY       -.4     -.6     -.9
16  2A-FY       4.0     7.2    10.2
17  2B-FY      14.4    26.1    36.5
18  2C-FY       8.5    15.5    21.9
19  2D-FY       -.3     -.5     -.8

21  4A-FY        .5     1.0     1.5
22  4B-FY       1.1     2.0     2.8
24  2F-FY       -.1     -.2     -.4
25  2G-FY       0.0     -.2     -.1
27  3A-FY       1.3     2.5     3.3

28  3B-FY       3.4     5.1     6.7
29  3C-FY        .7     1.3     1.8
30  3D-FY       -.2     -.4     -.5
32  3G-FY       -.4     -.9    -1.5
37  5E-FY       -.4     -.4     -.6

39  5F-FY       -.1     -.1     -.1
42  5A-FY        .3      .5     1.2
43  5B-FY       0.0     0.0     0.0
46  5C-FY       1.0     1.2     1.7
47  5G-FY       0.0     -.1     -.2

48  5D-FY       0.0     0.0     0.0
50  5F-AZ       -.8    -1.6    -2.0
51  4F-FY       -.2    -1.0    -1.1
52  4G-FY       -.2     -.4     -.7
56  4E-FY       0.0     -.2     -.2

60  4C-FY       1.1     2.8     3.3
61  4D-FY       -.2     -.3     -.5

SEP-08-89   11:36  PULLED FROM
UPPER PADEYE #3
```

```
FILE: F-3U-1

READING     TONS        LBS       KG
   #1       1.98       3950     1792
   #2       3.59       7183     3258
   #3       5.05      10099     4581

CH   GAUGE      #1 uS   #2 uS   #3 uS

 0   4C-AZ        -.9    -1.7    -2.4
 1   1A-FY         .4      .8     1.2
 2   1B-FY         .9     1.8     2.4
 3   1C-FY        1.1     2.0     2.8
 5   1D-FY       -1.4    -2.5    -3.5

 7   2E-FY       -1.0    -1.8    -2.3
10   1E-FY        -.8    -1.5    -2.1
11   1F-FY        -.9    -1.6    -2.3
12   1G-FY        -.8    -1.6    -2.2
14   3E-FY         .7     1.0     1.3

15   3F-FY         .2      .4      .5
16   2A-FY         .2      .4      .5
17   2B-FY        -.3     -.4     -.7
18   2C-FY        -.9    -1.7    -2.4
19   2D-FY       -1.0    -1.6    -2.6

21   4A-FY        1.7     3.0     4.3
22   4B-FY        2.1     3.8     5.1
24   2F-FY        -.8    -1.5    -2.2
25   2G-FY       -1.0    -1.8    -2.6
27   3A-FY        4.7     9.1    13.2

28   3B-FY       13.4    24.7    35.5
29   3C-FY      -18.9   -33.9   -47.2
30   3D-FY         .7     1.5     1.9
32   3G-FY        0.0     0.0     0.0
37   5E-FY        -.1     -.1     -.2

39   5F-FY        -.1     -.1     -.2
42   5A-FY        1.4     1.6     1.8
43   5B-FY        -.2    -1.8    -1.8
46   5C-FY        1.5     3.8     4.1
47   5G-FY        -.1    -1.8    -2.3

48   5D-FY        -.1     -.1     -.2
50   5F-AZ       -2.0    -2.5    -2.6
51   4F-FY       -1.0    -1.5    -1.6
52   4G-FY        -.3     -.8    -2.2
56   4E-FY        -.2     -.3     -.6

60   4C-FY         .1      .2      .5
61   4D-FY        -.2    -2.1    -2.4

SEP-08-89    11:26
```

```
FILE: F-3U-1

READING     TONS        LBS       KG
   #4       3.34       6685     3033
   #5       1.99       3973     1802
   #6        .01         11        5

CH   GAUGE      #4 uS   #5 uS   #6 uS

 0   4C-AZ       -1.5     -.8      .3
 1   1A-FY         .9      .7      .4
 2   1B-FY        1.3      .5     -.4
 3   1C-FY        2.0     1.5      .7
 5   1D-FY       -3.0    -2.2    -2.8

 7   2E-FY       -1.2     -.4      .6
10   1E-FY       -1.3     -.8      .1
11   1F-FY       -1.6    -1.0     -.1
12   1G-FY       -1.4     -.8      .2
14   3E-FY        1.2      .9      .3

15   3F-FY         .5      .4      .2
16   2A-FY         .4      .4      .4
17   2B-FY        -.6     -.4     -.3
18   2C-FY       -1.1     -.1     1.4
19   2D-FY       -1.6     -.9      .2

21   4A-FY        3.0     2.1      .7
22   4B-FY        3.2     1.9      .1
24   2F-FY       -1.3     -.7      .1
25   2G-FY       -1.5     -.8      .3
27   3A-FY        8.2     5.1      .4

28   3B-FY       24.2    15.8     2.5
29   3C-FY      -31.9   -19.7     -.2
30   3D-FY        1.6     1.2      .5
32   3G-FY        0.0      .1      .2
37   5E-FY        -.1      .1      .7

39   5F-FY        -.1     0.0      .2
42   5A-FY        1.5     1.4     1.4
43   5B-FY        -.2     0.0      .1
46   5C-FY        3.6     1.5      .1
47   5G-FY       -1.9     -.2     0.0

48   5D-FY        -.2     -.1      .1
50   5F-AZ       -2.3    -1.4      .8
51   4F-FY       -1.3    -1.0     0.0
52   4G-FY        -.6     -.2      .1
56   4E-FY        -.3     -.2      .1

60   4C-FY         .4      .2      .2
61   4D-FY       -2.0     -.2     0.0

SEP-08-89    11:26
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```
FILE: F-4U-1

READING     TONS         LBS       KG
    #1      2.07        4137     1876
    #2      3.70        7392     3353
    #3      4.96        9924     4501

CH   GAUGE      #1 uS    #2 uS    #3 uS

 0   4C-AZ      -27.2    -48.6    -65.5
 1   1A-FY         .4       .7       .9
 2   1B-FY         .5      1.2      1.5
 3   1C-FY         .7      1.3      1.7
 5   1D-FY        -.6     -1.7     -2.1

 7   2E-FY        -.9     -1.7     -2.2
10   1E-FY        -.7     -1.2     -1.5
11   1F-FY        -.7     -1.2     -1.6
12   1G-FY        -.7     -1.1     -1.5
14   3E-FY        -.4      -.8     -1.0

15   3F-FY        -.5     -1.0     -1.3
16   2A-FY         .2       .3       .4
17   2B-FY        1.3      2.2      2.9
18   2C-FY       -1.1     -2.0     -2.6
19   2D-FY        -.9     -1.6     -2.1

21   4A-FY        3.5      6.2      8.6
22   4B-FY       16.1     29.4     39.8
24   2F-FY        -.9     -1.6     -2.1
25   2G-FY       -1.1     -1.8     -2.5
27   3A-FY         .9      1.5      2.1

28   3B-FY       -1.3     -2.4     -3.2
29   3C-FY       -2.1     -3.8     -5.1
30   3D-FY        -.9     -1.6     -2.1
32   3G-FY        -.4      -.5      -.8
37   5E-FY        -.1      -.1      -.2

39   5F-FY        -.6     -1.9     -2.1
42   5A-FY        2.4      3.9      5.8
43   5B-FY        1.8      2.2      3.1
46   5C-FY         .4      1.3      1.7
47   5G-FY       -1.9     -2.3     -2.6

48   5D-FY        -.6      -.9     -1.0
50   5F-AZ        -.5     -2.3     -2.8
51   4F-FY        0.0      0.0      0.0
52   4G-FY        0.0      0.0      0.0
56   4E-FY         .1       .1       .1

60   4C-FY      -15.6    -27.5    -37.2
61   4D-FY         .3      -.1      -.2

SEP-06-89    10:51
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```
FILE: F-4U-1

READING     TONS         LBS       KG
    #4      3.52        7036     3191
    #5      2.07        4131     1874
    #6      -.08        -164      -74

CH   GAUGE      #4 uS    #5 uS    #6 uS

 0   4C-AZ      -46.3    -26.6       .2
 1   1A-FY         .7       .5       .2
 2   1B-FY        1.1       .5      -.2
 3   1C-FY        1.2       .8       .1
 5   1D-FY       -1.6     -1.9     -1.1

 7   2E-FY       -1.5      -.8       .2
10   1E-FY       -1.0      -.5       .1
11   1F-FY       -1.1      -.6      0.0
12   1G-FY       -1.0      -.4       .4
14   3E-FY        -.7      -.3       .1

15   3F-FY        -.9      -.4       .1
16   2A-FY         .3       .2       .1
17   2B-FY        2.0      1.2      0.0
18   2C-FY       -1.6      -.6        0
19   2D-FY       -1.5      -.9       .1

21   4A-FY        6.0      3.6       .1
22   4B-FY       29.0     17.7      1.6
24   2F-FY       -1.5      -.6       .1
25   2G-FY       -1.8     -1.0      0.0
27   3A-FY        1.5       .9       .1

28   3B-FY       -2.3     -1.3      0.0
29   3C-FY       -3.6     -2.1      0.0
30   3D-FY       -1.5      -.9      0.0
32   3G-FY        -.5      -.4      0.0
37   5E-FY        -.2      -.1      -.1

39   5F-FY       -1.9      -.2      0.0
42   5A-FY        3.6      2.4       .2
43   5B-FY        2.2      1.8      0.0
46   5C-FY        1.0       .4       .1
47   5G-FY       -2.3     -1.9      0.0

48   5D-FY        -.7      -.6       .1
50   5F-AZ       -2.2      -.4       .1
51   4F-FY        0.0       .1      0.0
52   4G-FY        0.0      0.0      0.0
56   4E-FY         .1       .1      0.0

60   4C-FY      -27.0    -15.6       .1
61   4D-FY         .1       .4       .6

SEP-08-89    10:51
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```
FILE: F-5U-1

READING    TONS        LBS      KG
   #1      2.25       4504    2043
   #2      3.53       7058    3202
   #3      4.75       9506    4312

CH   GAUGE      #1 uS    #2 uS   #3 uS

 0   4C-AZ        1.6      2.6     3.5
 1   1A-FY         .3       .4      .5
 2   1B-FY         .6       .8     1.1
 3   1C-FY         .7      1.0     1.3
 5   1D-FY        -.1      -.6    -1.2

 7   2E-FY        -.7     -1.2    -1.6
10   1E-FY        -.4      -.7     -.9
11   1F-FY        -.5      -.7     -.8
12   1G-FY        -.5      -.7     -.9
14   3E-FY        -.6     -1.0    -1.3

15   3F-FY        -.7     -1.1    -1.5
16   2A-FY         .1       .2      .3
17   2B-FY         .9      1.5     2.0
18   2C-FY        -.8     -1.3    -1.7
19   2D-FY        -.7     -1.1    -1.5

21   4A-FY        -.1      -.2     -.4
22   4B-FY       -1.6     -2.3    -3.1
24   2F-FY        -.7     -1.1    -1.4
25   2G-FY        -.8     -1.2    -1.6
27   3A-FY         .5       .8     1.1

28   3B-FY        1.1      1.6     2.3
29   3C-FY        1.3      2.1     2.8
30   3D-FY        -.9     -1.3    -1.8
32   3G-FY        -.2      -.6    -1.3
37   5E-FY         .2       .3      .4

39   5F-FY         .1       .1      .2
42   5A-FY       10.1     14.5    18.8
43   5B-FY       -5.9     -9.9   -13.8
46   5C-FY      -22.7    -34.7   -45.5
47   5G-FY        1.4      1.2     1.5

48   5D-FY        1.0      1.5     1.7
50   5F-AZ        -.1      -.2     -.1
51   4F-FY        -.2      -.5     -.7
52   4G-FY       -1.1     -2.0    -2.5
56   4E-FY       -1.3     -2.0    -2.5

60   4C-FY        -.2      -.5    -1.3
61   4D-FY        -.7     -1.5    -1.6

SEP-08-89    10:41
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```
FILE: F-5U-1

READING    TONS        LBS      KG
   #4      3.30       6606    2997
   #5      2.07       4142    1879
   #6      -.02        -34     -15

CH   GAUGE      #4 uS    #5 uS   #6 uS

 0   4C-AZ        2.5      1.6      .1
 1   1A-FY         .4       .4      .3
 2   1B-FY         .7       .5     0.0
 3   1C-FY         .9       .6      .1
 5   1D-FY        -.9     -1.0     -.4

 7   2E-FY       -1.1      -.7      .3
10   1E-FY        -.6      -.4      .2
11   1F-FY        -.5      -.2      .4
12   1G-FY        -.5      -.2      .4
14   3E-FY        -.8      -.5      .2

15   3F-FY        -.9      -.5      .2
16   2A-FY         .2       .1     0.0
17   2B-FY        1.3       .9     -.1
18   2C-FY        -.9      -.4      .7
19   2D-FY       -1.0      -.6      .1

21   4A-FY        -.3      -.1      .3
22   4B-FY       -2.2     -1.3      .2
24   2F-FY        -.9      -.5      .2
25   2G-FY       -1.0      -.6      .3
27   3A-FY         .9       .6      .1

28   3B-FY        1.6      1.0      .1
29   3C-FY        2.0      1.3     0.0
30   3D-FY       -1.2      -.7      .1
32   3G-FY        -.4      -.2      .1
37   5E-FY         .2       .1     -.1

39   5F-FY         .2       .1      .1
42   5A-FY       14.1      8.3     0.0
43   5B-FY       -9.7     -5.9     -.1
46   5C-FY      -31.3    -21.2      .1
47   5G-FY        1.4      1.4     1.1

48   5D-FY        1.4      1.3      .2
50   5F-AZ        -.1      0.0      .1
51   4F-FY        -.4      -.2      .1
52   4G-FY       -1.8      -.4      .2
56   4E-FY       -1.8      -.8      .1

60   4C-FY        -.5      -.1      .1
61   4D-FY       -1.5      -.6      .1

SEP-08-89    10:41
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```
FILE: F-2S-1

READING   TONS       LBS      KG
   #4     3.48      6968    3161
   #5     2.18      4357    1976
   #6     -.08      -158     -72

CH  GAUGE    #4 uS   #5 uS   #6 uS

 0  4C-AZ     -2.1    -1.3      .3
 1  1A-FY      1.0      .7      .1
 2  1B-FY      2.5     1.7      .4
 3  1C-FY      2.0     1.3     0.0
 5  1D-FY     -3.0    -3.5    -3.9

 7  2E-FY     -2.4    -1.5     -.1
10  1E-FY     -1.5     -.9     0.0
11  1F-FY     -1.9    -1.1      .2
12  1G-FY     -2.4    -1.4      .2
14  3E-FY     -2.5    -1.6     -.2

15  3F-FY     -3.1    -1.9     0.0
16  2A-FY       .7      .5      .1
17  2B-FY      4.6     2.8     -.1
18  2C-FY     -2.4    -1.1     1.2
19  2D-FY     -2.1    -1.3     0.0

21  4A-FY      -.2     0.0      .2
22  4B-FY      1.9     2.1     2.1
24  2F-FY     -1.9    -1.2      .1
25  2G-FY     -2.5    -1.5      .1
27  3A-FY      1.8     1.2      .1

28  3B-FY      4.3     2.8      .1
29  3C-FY      5.0     3.0     -.1
30  3D-FY      0.0     0.0     0.0
32  3G-FY     -2.5    -1.9     -.1
37  5E-FY      1.4      .4     -.5

39  5F-FY       .1     0.0      .2
42  5A-FY      1.4      .7      .2
43  5B-FY      -.1     -.1     0.0
46  5C-FY      3.1     1.4      .1
47  5G-FY      -.4     -.2      .1

48  5D-FY      1.0      .2     0.0
50  5F-AZ     -2.6     -.8      .1
51  4F-FY     -7.8    -4.5     0.0
52  4G-FY     -7.9    -4.3      .1
56  4E-FY      -.1     -.1      .1

60  4C-FY     -1.0     -.4     1.3
61  4D-FY     12.8     7.9     0.0

SEP-08-89  11:45  PULLED FROM
UPPER PADEYE #3
```

```
FILE: F-2S-1

READING   TONS       LBS      KG
   #1     1.99      3973    1802
   #2     3.62      7245    3286
   #3     5.23     10455    4742

CH  GAUGE    #1 uS   #2 uS   #3 uS

 0  4C-AZ     -1.3    -2.2    -3.1
 1  1A-FY       .6     1.0     1.5
 2  1B-FY      1.5     2.4     3.4
 3  1C-FY      1.2     2.1     2.9
 5  1D-FY     -1.2    -2.4    -3.3

 7  2E-FY     -1.3    -2.4    -3.6
10  1E-FY      -.8    -1.5    -2.2
11  1F-FY     -1.1    -1.8    -2.7
12  1G-FY     -1.3    -2.5    -3.5
14  3E-FY     -1.5    -2.6    -3.7

15  3F-FY     -1.6    -3.2    -4.6
16  2A-FY       .4      .7     1.0
17  2B-FY      2.7     4.7     6.7
18  2C-FY     -1.7    -2.8    -4.1
19  2D-FY     -1.2    -2.1    -3.2

21  4A-FY      -.2     -.3     -.4
22  4B-FY       .4     1.0     1.7
24  2F-FY     -1.1    -2.0    -3.0
25  2G-FY     -1.3    -2.5    -3.5
27  3A-FY      1.0     1.8     2.7

28  3B-FY      2.6     4.4     6.4
29  3C-FY      2.8     5.1     7.4
30  3D-FY       .1      .1      .1
32  3G-FY     -1.7    -2.5    -5.4
37  5E-FY       .9     1.5     1.6

39  5F-FY      0.0      .1      .1
42  5A-FY       .6     1.2     2.5
43  5B-FY      -.1     -.1     -.1
46  5C-FY      1.1     3.1     3.5
47  5G-FY      -.2     -.4     -.4

48  5D-FY       .2     1.0     1.2
50  5F-AZ      -.9    -2.6    -3.6
51  4F-FY     -4.1    -7.8   -10.1
52  4G-FY     -4.3    -8.0   -11.8
56  4E-FY      -.1     -.2     -.2

60  4C-FY      -.9    -1.6    -1.8
61  4D-FY      7.7    12.9    19.1

SEP-08-89  11:45  PULLED FROM
UPPER PADEYE #3
```

```
FILE: F-4S-1

READING    TONS        LBS       KG
   #4      3.51       7025     3186
   #5      2.18       4352     1974
   #6      0.00          0        0

CH  GAUGE     #4 uS   #5 uS   #6 uS

 0  4C-AZ        .5      .3      .1
 1  1A-FY        .9      .5      .1
 2  1B-FY       1.4      .9     -.1
 3  1C-FY       1.5     1.0     0.0
 5  1D-FY      -1.5    -1.3    -1.2

 7  2E-FY      -2.2    -1.3      .1
10  1E-FY      -1.3     -.7      .1
11  1F-FY      -1.3     -.8      .2
12  1G-FY      -1.5     -.7      .1
14  3E-FY      -4.4    -2.6      .1

15  3F-FY      -4.9    -3.0      .1
16  2A-FY        .5      .4      .1
17  2B-FY       3.2     2.0      .1
18  2C-FY      -2.3    -1.1       8
19  2D-FY      -2.0    -1.3      .1

21  4A-FY       -.7     -.3      .2
22  4B-FY      -1.1    -1.4    -1.9
24  2F-FY      -1.7    -1.0      .1
25  2G-FY      -1.8    -1.2     -.1
27  3A-FY       1.1      .7      .1

28  3B-FY       2.8     1.8      .1
29  3C-FY       3.1     1.9     0.0
30  3D-FY       -.2     -.2      .2
32  3G-FY      -4.4    -2.9      .1
37  5E-FY        .1     0.0     0.0

39  5F-FY       -.2     -.1     0.0
42  5A-FY       2.1     2.0     0.0
43  5B-FY      -1.8    -1.7      .1
46  5C-FY       4.1     1.6      .1
47  5G-FY      -2.7    -2.3     -.1

48  5D-FY        .8      .7      .1
50  5F-AZ      -4.1    -2.7      .1
51  4F-FY     -12.2    -7.8      .1
52  4G-FY     -14.0    -7.9     0.0
56  4E-FY      -2.2     -.7      .1

60  4C-FY       0.0      .2      .3
61  4D-FY      22.1    13.4      .4

SEP-08-89     10:59
```

```
FILE: F-4S-1

READING    TONS        LBS       KG
   #1      2.08       4159     1887
   #2      3.62       7234     3281
   #3      4.87       9737     4417

CH  GAUGE     #1 uS   #2 uS   #3 uS

 0  4C-AZ        .2      .5      .7
 1  1A-FY        .5      .9     1.1
 2  1B-FY        .9     1.5     2.0
 3  1C-FY        .9     1.5     2.1
 5  1D-FY      -1.0    -1.6    -1.9

 7  2E-FY      -1.4    -2.3    -3.1
10  1E-FY       -.8    -1.3    -1.8
11  1F-FY       -.7    -1.4    -1.9
12  1G-FY       -.8    -1.5    -1.9
14  3E-FY      -2.7    -4.5    -6.1

15  3F-FY      -3.0    -5.0    -6.9
16  2A-FY        .3      .5      .7
17  2B-FY       2.0     3.4     4.5
18  2C-FY      -1.5    -2.6    -3.4
19  2D-FY      -1.2    -2.1    -2.9

21  4A-FY       -.4     -.7    -1.0
22  4B-FY       -.2     -.5     -.7
24  2F-FY      -1.0    -1.8    -2.3
25  2G-FY      -1.1    -2.0    -2.5
27  3A-FY        .6     1.1     1.5

28  3B-FY       1.8     2.9     3.9
29  3C-FY       1.9     3.3     4.4
30  3D-FY       -.1     -.4     -.4
32  3G-FY      -2.8    -4.4    -7.0
37  5E-FY       0.0      .1      .3

39  5F-FY       -.1     -.3    -1.8
42  5A-FY       2.0     2.1     2.5
43  5B-FY      -1.7    -1.8    -2.1
46  5C-FY       1.6     4.1     4.6
47  5G-FY      -2.1    -2.6    -3.5

48  5D-FY        .7      .8     1.0
50  5F-AZ      -2.7    -4.2    -5.0
51  4F-FY      -7.8   -12.2   -16.4
52  4G-FY      -7.9   -14.3   -18.8
56  4E-FY       -.7    -2.2    -3.3

60  4C-FY       -.5     -.5     -.7
61  4D-FY      13.1    22.5    31.7

SEP-08-89     10:59
```

APPENDIX C

Validity Check of Calibration Matrix

```
LOAD CASE 1 (MARTEC's calibrtn strains)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
             0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000     -0.0000      1.0000
-------------------------------------------------------------------------------
LOAD CASE 2 (MARTEC's calibrtn strains)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
             0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000      0.0000     -0.0000      1.0000
             0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 3 (MARTEC's calibrtn strains)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
             0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000      0.0000      1.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 4 (MARTEC's calibrtn strains)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
             0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
Stringer     0.0000     -0.0000      0.0000     -0.0000     -0.0000      1.0000
             0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
             0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 5 (MARTEC's calibrtn strains)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
             0.0000      0.0000      0.0000     -0.0000     -0.0000      1.0000
Stringer     0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 6 (MARTEC's calibrtn strains)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000      0.0000      0.0000      1.0000
             0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
             0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 7 (MARTEC's calibrtn strains)     Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
Stringer    0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      1.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 8 (MARTEC's calibrtn strains)     Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer    0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
            0.0000      0.0000     -0.0000      0.0000      1.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 9 (MARTEC's calibrtn strains)     Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer    0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      1.0000      0.0000
            0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
            0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 10                                Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
Stringer    0.0000      0.0000     -0.0000     -0.0000      1.0000     -0.0000
            0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 11                                Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000     -0.0000      0.0000      1.0000     -0.0000
Stringer    0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
            0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
LOAD CASE 12                                Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000     -0.0000     -0.0000      1.0000     -0.0000
            0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
Stringer    0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 13                                  Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer    0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      1.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
LOAD CASE 14                                  Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer    0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
            0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      1.0000      0.0000     -0.0000
            0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
--------------------------------------------------------------------------------
LOAD CASE 15                                  Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer    0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
            0.0000      0.0000     -0.0000      1.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
            0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
LOAD CASE 16                                  Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer    0.0000     -0.0000      0.0000      1.0000     -0.0000      0.0000
            0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
LOAD CASE 17                                  Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      1.0000      0.0000     -0.0000
Stringer    0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
LOAD CASE 18                                  Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000      0.0000      1.0000      0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer    0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
            0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
```

```
LOAD CASE 19                                              Pressure (MPa)

                 Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                   0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
                   0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer           0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
                   0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
                   0.0000     -0.0000      1.0000     -0.0000     -0.0000      0.0000
---------------------------------------------------------------------------------------
LOAD CASE 20                                              Pressure (MPa)

                 Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                   0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
                   0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer           0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
                   0.0000      0.0000      1.0000      0.0000      0.0000     -0.0000
                   0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
---------------------------------------------------------------------------------------
LOAD CASE 21                                              Pressure (MPa)

                 Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                   0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
                   0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer           0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
                   0.0000     -0.0000      1.0000     -0.0000     -0.0000      0.0000
                   0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
                   0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
---------------------------------------------------------------------------------------
LOAD CASE 22                                              Pressure (MPa)

                 Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                   0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
                   0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer           0.0000      0.0000      1.0000      0.0000      0.0000     -0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
                   0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
---------------------------------------------------------------------------------------
LOAD CASE 23                                              Pressure (MPa)

                 Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                   0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
                   0.0000      0.0000      1.0000     -0.0000     -0.0000     -0.0000
Stringer           0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
                   0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
---------------------------------------------------------------------------------------
LOAD CASE 24                                              Pressure (MPa)

                 Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                   0.0000      0.0000      1.0000      0.0000      0.0000     -0.0000
                   0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
Stringer           0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
                   0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
                   0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
---------------------------------------------------------------------------------------
```

```
LOAD CASE 25                                      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
             0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer     0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      1.0000     -0.0000     -0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
LOAD CASE 26                                      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
             0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer     0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000      1.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
LOAD CASE 27                                      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
             0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
             0.0000      1.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
LOAD CASE 28                                      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
             0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer     0.0000      1.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
-------------------------------------------------------------------------------
LOAD CASE 29                                      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
             0.0000      1.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
LOAD CASE 30                                      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      1.0000      0.0000      0.0000     -0.0000      0.0000
             0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer     0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
```

MARTEC's Applied Load Pressure (MPa)

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	1.0000	0.0000	-0.0000
Stringer	0.0000	0.0000	-0.0000	1.0000	-0.0000	0.0000
	0.0000	.5000	-0.0000	-0.0000	-0.0000	0.0000
	0.0000	.5000	0.0000	-0.0000	1.5000	-0.0000
	0.0000	0.0000	-0.0000	0.0000	1.5000	0.0000

MARTEC's Test Case Pressure (MPa)

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
	0.0000	-.1460	.0506	.1034	.1237	.0621
	0.0000	.0944	.0301	.9231*	-.0620	-.1070
Stringer	0.0000	.0806	-.1740	1.0900*	-.0602	.2164
	0.0000	.3807	.2513	-.0859	-.1270	-.0380
	0.0000	.5986	-.1649	.0829	1.6031✓	.0177
	0.0000	-.0134	.0647	-.0839	1.4591✓	.0039

"Actual applied load was: 1.5 MPa at ✓
1 MPa at *"

APPENDIX D

Calibrated Ice Panel Pressures using FESDEC FE Results Both With and Without Frame Calibration Coefficients

```
Load Case # 1 (utilizating all gauges)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000      0.0000      0.0000     -0.0000     -0.0000      1.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
Stringer     -0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
             -0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
              0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 2 (utilizating all gauges)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000      1.0000
Stringer      0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
             -0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 3 (utilizating all gauges)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer     -0.0000     -0.0000     -0.0000     -0.0000      0.0000      1.0000
              0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
             -0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
---------------------------------------------------------------------------------
Load Case # 4 (utilizating all gauges)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
             -0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
Stringer      0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
             -0.0000      0.0000     -0.0000     -0.0000      0.0000      1.0000
             -0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
             -0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 5 (utilizating all gauges)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer      0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
             -0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
             -0.0000      0.0000      0.0000      0.0000     -0.0000      1.0000
             -0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 6 (utilizating all gauges)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer     -0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
             -0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
             -0.0000      0.0000      0.0000     -0.0000      0.0000      1.0000
---------------------------------------------------------------------------------
```

```
Load Case # 7 (utilizating all gauges)        Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      1.0000      0.0000
           -0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer   -0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
-------------------------------------------------------------------------------
Load Case # 8 (utilizating all gauges)        Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000     -0.0000     -0.0000      0.0000      1.0000     -0.0000
Stringer   -0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
-------------------------------------------------------------------------------
Load Case # 9 (utilizating all gauges)        Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
Stringer    0.0000      0.0000      0.0000     -0.0000      1.0000     -0.0000
            0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
Load Case # 10 (utilizating all gauges)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer   -0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
            0.0000      0.0000     -0.0000      0.0000      1.0000     -0.0000
           -0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
Load Case # 11 (utilizating all gauges)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer   -0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
           -0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000      1.0000     -0.0000
           -0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
-------------------------------------------------------------------------------
Load Case # 12 (utilizating all gauges)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
           -0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer   -0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
           -0.0000     -0.0000      0.0000     -0.0000      1.0000      0.0000
-------------------------------------------------------------------------------
```

```
Load Case # 13 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000      1.0000     -0.0000      0.0000
           -0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer   -0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
           -0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 14 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
           -0.0000      0.0000     -0.0000      1.0000     -0.0000      0.0000
Stringer   -0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 15 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
Stringer   -0.0000      0.0000      0.0000      1.0000     -0.0000     -0.0000
            0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
           -0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 16 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
           -0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer    0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
           -0.0000      0.0000     -0.0000      1.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
           -0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 17 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer    0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
           -0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
            0.0000      0.0000      0.0000      1.0000      0.0000     -0.0000
           -0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 18 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
           -0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
Stringer   -0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
            0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
            0.0000     -0.0000      0.0000      1.0000      0.0000      0.0000
--------------------------------------------------------------------------------
```

```
Load Case # 19 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -0.0000     -0.0000      1.0000      0.0000     -0.0000     -0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer    0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
           -0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
            0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 20 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
           -0.0000      0.0000      1.0000      0.0000     -0.0000      0.0000
Stringer    0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
           -0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
            0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 21 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
Stringer    0.0000     -0.0000      1.0000      0.0000     -0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
           -0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 22 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer   -0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
           -0.0000      0.0000      1.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
           -0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 23 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
           -0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer   -0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      1.0000     -0.0000      0.0000      0.0000
           -0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 24 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
           -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer    0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
            0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
            0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
            0.0000     -0.0000      1.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
```

```
Load Case # 25 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0   Frame 61.5   Frame 61.0   Frame 60.5   Frame 60.0   Frame 59.5
             0.0000       1.0000      -0.0000      -0.0000       0.0000      -0.0000
            -0.0000       0.0000      -0.0000       0.0000      -0.0000       0.0000
Stringer     0.0000      -0.0000       0.0000       0.0000      -0.0000       0.0000
            -0.0000      -0.0000       0.0000      -0.0000       0.0000       0.0000
             0.0000       0.0000      -0.0000      -0.0000       0.0000       0.0000
            -0.0000      -0.0000       0.0000       0.0000      -0.0000      -0.0000
------------------------------------------------------------------------------------------
Load Case # 26 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0   Frame 61.5   Frame 61.0   Frame 60.5   Frame 60.0   Frame 59.5
            -0.0000      -0.0000      -0.0000      -0.0000       0.0000      -0.0000
            -0.0000       1.0000      -0.0000       0.0000      -0.0000      -0.0000
Stringer     0.0000      -0.0000       0.0000       0.0000      -0.0000      -0.0000
            -0.0000       0.0000      -0.0000       0.0000       0.0000       0.0000
             0.0000      -0.0000       0.0000      -0.0000       0.0000      -0.0000
            -0.0000      -0.0000       0.0000       0.0000      -0.0000      -0.0000
------------------------------------------------------------------------------------------
Load Case # 27 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0   Frame 61.5   Frame 61.0   Frame 60.5   Frame 60.0   Frame 59.5
             0.0000      -0.0000      -0.0000      -0.0000       0.0000      -0.0000
             0.0000       0.0000      -0.0000       0.0000      -0.0000       0.0000
Stringer    -0.0000       1.0000      -0.0000      -0.0000      -0.0000      -0.0000
             0.0000       0.0000      -0.0000       0.0000      -0.0000       0.0000
            -0.0000      -0.0000       0.0000      -0.0000       0.0000       0.0000
             0.0000      -0.0000       0.0000       0.0000      -0.0000       0.0000
------------------------------------------------------------------------------------------
Load Case # 28 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0   Frame 61.5   Frame 61.0   Frame 60.5   Frame 60.0   Frame 59.5
             0.0000      -0.0000       0.0000      -0.0000      -0.0000      -0.0000
            -0.0000       0.0000      -0.0000       0.0000      -0.0000       0.0000
Stringer    -0.0000       0.0000      -0.0000      -0.0000      -0.0000      -0.0000
             0.0000       1.0000      -0.0000       0.0000      -0.0000       0.0000
             0.0000      -0.0000       0.0000      -0.0000       0.0000       0.0000
             0.0000      -0.0000      -0.0000      -0.0000      -0.0000      -0.0000
------------------------------------------------------------------------------------------
Load Case # 29 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0   Frame 61.5   Frame 61.0   Frame 60.5   Frame 60.0   Frame 59.5
             0.0000      -0.0000       0.0000       0.0000      -0.0000      -0.0000
            -0.0000       0.0000      -0.0000       0.0000      -0.0000       0.0000
Stringer    -0.0000       0.0000       0.0000       0.0000       0.0000      -0.0000
             0.0000       0.0000       0.0000       0.0000       0.0000       0.0000
             0.0000       1.0000       0.0000       0.0000       0.0000      -0.0000
            -0.0000      -0.0000       0.0000      -0.0000      -0.0000      -0.0000
------------------------------------------------------------------------------------------
Load Case # 30 (utilizating all gauges)      Pressure (MPa)

          Frame 62.0   Frame 61.5   Frame 61.0   Frame 60.5   Frame 60.0   Frame 59.5
             0.0000      -0.0000       0.0000      -0.0000       0.0000      -0.0000
            -0.0000       0.0000      -0.0000       0.0000      -0.0000       0.0000
Stringer    -0.0000       0.0000       0.0000      -0.0000       0.0000      -0.0000
             0.0000       0.0000       0.0000       0.0000       0.0000       0.0000
            -0.0000      -0.0000       0.0000      -0.0000       0.0000      -0.0000
             0.0000       1.0000       0.0000      -0.0000      -0.0000      -0.0000
------------------------------------------------------------------------------------------
```

```
Load Case # 31 (utilizating all gauges)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              1.0000     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
             -0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer      0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
             -0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
              0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             -0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
----------------------------------------------------------------------------------
Load Case # 32 (utilizating all gauges)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
              1.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
              0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
----------------------------------------------------------------------------------
Load Case # 33 (utilizating all gauges)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
              0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      1.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
              0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
             -0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
----------------------------------------------------------------------------------
Load Case # 34 (utilizating all gauges)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer     -0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
              1.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
             -0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
              0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
----------------------------------------------------------------------------------
Load Case # 35 (utilizating all gauges)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
             -0.0000      0.0000     -0.0000      0.0000      0.0000      0.0000
Stringer     -0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
              1.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
----------------------------------------------------------------------------------
Load Case # 36 (utilizating all gauges)      Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer     -0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000     -0.0000     -0.0000
              0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
              1.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
----------------------------------------------------------------------------------
```

```
Load Case # 37 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
               1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
Stringer       1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
               1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
               1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
               1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
----------------------------------------------------------------------------------
Load Case # 38 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -0.0000      0.0000     -0.0000      0.0000      0.0000      1.0000
               0.0000     -0.0000      0.0000      0.0000     -0.0000      1.0000
Stringer       0.0000     -0.0000     -0.0000     -0.0000      0.0000      1.0000
              -0.0000      0.0000     -0.0000      0.0000     -0.0000      1.0000
               0.0000     -0.0000      0.0000     -0.0000      0.0000      1.0000
              -0.0000      0.0000     -0.0000      0.0000     -0.0000      1.0000
----------------------------------------------------------------------------------
Load Case # 39 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.0000     -0.0000      0.0000      1.0000     -0.0000     -0.0000
               0.0000      0.0000     -0.0000      1.0000      0.0000      0.0000
Stringer      -0.0000     -0.0000      0.0000      1.0000     -0.0000     -0.0000
               0.0000     -0.0000      0.0000      1.0000      0.0000     -0.0000
              -0.0000      0.0000     -0.0000      1.0000     -0.0000      0.0000
               0.0000     -0.0000      0.0000      1.0000      0.0000     -0.0000
----------------------------------------------------------------------------------
Load Case # 40 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -0.0000      0.0000     -0.0000      2.5000     -0.0000      0.0000
               0.0000     -0.0000      0.0000      2.5000      0.0000     -0.0000
Stringer       0.0000     -0.0000     -0.0000      2.5000      0.0000      0.0000
              -0.0000     -0.0000     -0.0000      2.5000     -0.0000      0.0000
               0.0000      0.0000      0.0000      2.5000      0.0000     -0.0000
              -0.0000     -0.0000     -0.0000      2.5000     -0.0000      0.0000
----------------------------------------------------------------------------------
Load Case # 41 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.0000      1.0000     -0.0000      0.0000     -0.0000      0.0000
              -0.0000      1.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer       0.0000      1.0000      0.0000     -0.0000      0.0000     -0.0000
              -0.0000      1.0000     -0.0000     -0.0000     -0.0000     -0.0000
               0.0000      1.0000      0.0000      0.0000      0.0000      0.0000
              -0.0000      1.0000     -0.0000     -0.0000      0.0000     -0.0000
----------------------------------------------------------------------------------
Load Case # 42 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
              -0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
Stringer      -0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
               0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
              -0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
               0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
----------------------------------------------------------------------------------
```

```
Load Case # 43 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
             -0.0000     -0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer      1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
             -0.0000     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
             -0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------------
Load Case # 44 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
             -0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer      0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
             -0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
              1.0000      1.0000      1.0000      1.0000      1.0000      1.0000
             -0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
-------------------------------------------------------------------------------------
Load Case # 45 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
             -0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer      0.0000      0.0000     -0.0000      0.0000     -0.0000     -0.0000
             -0.0000     -0.0000      1.5000      1.0000      0.0000     -0.0000
              0.0000      0.0000      1.9000      1.4000       .9000      0.0000
             -0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------------
Load Case # 46 (utilizating all gauges)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
              0.0000     -0.0000      0.0000     -0.0000      1.5000      1.5000
Stringer      0.0000      0.0000     -0.0000      0.0000      1.4000      1.4000
             -0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
              0.0000       .7500       .7500      0.0000     -0.0000     -0.0000
             -0.0000       .6500       .6500     -0.0000      0.0000      0.0000
-------------------------------------------------------------------------------------
```

```
Load Case # 1 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             .0141     -0.0000      0.0000     -0.0000      0.0000      1.0000
            -.0120      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer     .0058      0.0000      0.0000     -0.0000      0.0000     -0.0000
            -.0080      0.0000     -0.0000     -0.0000      0.0000     -0.0000
            -.0054      0.0000     -0.0000      0.0000     -0.0000      0.0000
            -.0006      0.0000      0.0000     -0.0000      0.0000     -0.0000
------------------------------------------------------------------------------
Load Case # 2 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             .0051     -0.0000      0.0000     -0.0000     -0.0000      0.0000
            -.0222      0.0000     -0.0000      0.0000     -0.0000      1.0000
Stringer     .0300      0.0000      0.0000     -0.0000      0.0000     -0.0000
            -.0128      0.0000     -0.0000     -0.0000      0.0000     -0.0000
            -.0059      0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
------------------------------------------------------------------------------
Load Case # 3 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            -.0042      0.0000     -0.0000     -0.0000     -0.0000      0.0000
            -.0294      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer     .0548     -0.0000      0.0000     -0.0000      0.0000      1.0000
            -.0123      0.0000      0.0000     -0.0000      0.0000     -0.0000
            -.0035     -0.0000      0.0000      0.0000     -0.0000     -0.0000
             .0030      0.0000     -0.0000      0.0000      0.0000      0.0000
------------------------------------------------------------------------------
Load Case # 4 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            -.0103      0.0000     -0.0000      0.0000      0.0000     -0.0000
            -.0207     -0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer     .0594      0.0000     -0.0000      0.0000     -0.0000      0.0000
            -.0015      0.0000      0.0000     -0.0000      0.0000      1.0000
             .0027     -0.0000      0.0000      0.0000     -0.0000     -0.0000
             .0065      0.0000      0.0000      0.0000      0.0000     -0.0000
------------------------------------------------------------------------------
Load Case # 5 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            -.0136      0.0000     -0.0000      0.0000      0.0000     -0.0000
            -.0112     -0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer     .0568      0.0000     -0.0000      0.0000     -0.0000      0.0000
             .0101      0.0000      0.0000      0.0000      0.0000     -0.0000
             .0085     -0.0000     -0.0000      0.0000     -0.0000      1.0000
             .0097      0.0000      0.0000      0.0000      0.0000     -0.0000
------------------------------------------------------------------------------
Load Case # 6 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            -.0180     -0.0000      0.0000     -0.0000     -0.0000      0.0000
             .0050      0.0000     -0.0000     -0.0000     -0.0000      0.0000
Stringer     .0435      0.0000      0.0000     -0.0000      0.0000      0.0000
             .0210      0.0000     -0.0000     -0.0000      0.0000     -0.0000
             .0126     -0.0000      0.0000      0.0000     -0.0000      0.0000
             .0110     -0.0000      0.0000      0.0000      0.0000      1.0000
------------------------------------------------------------------------------
```

```
Load Case # 7 (omitting Web Frame)              Pressure (MPa)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  .0100      0.0000     -0.0000      0.0000      1.0000      0.0000
                -.0694     -0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer          .1449      0.0000      0.0000     -0.0000      0.0000     -0.0000
                -.0221      0.0000     -0.0000     -0.0000      0.0000     -0.0000
                -.0056      0.0000     -0.0000      0.0000     -0.0000      0.0000
                  .0101     -0.0000      0.0000      0.0000      0.0000     -0.0000
-----------------------------------------------------------------------------------
Load Case # 8 (omitting Web Frame)              Pressure (MPa)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                -.0071      0.0000     -0.0000     -0.0000      0.0000      0.0000
                -.1246     -0.0000      0.0000     -0.0000      1.0000     -0.0000
Stringer          .2292      0.0000      0.0000     -0.0000      0.0000     -0.0000
                -.0388      0.0000      0.0000     -0.0000      0.0000     -0.0000
                -.0091     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
                  .0142      0.0000      0.0000      0.0000      0.0000     -0.0000
-----------------------------------------------------------------------------------
Load Case # 9 (omitting Web Frame)              Pressure (MPa)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                -.0243     -0.0000      0.0000     -0.0000      0.0000     -0.0000
                -.1646      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer          .3003     -0.0000      0.0000     -0.0000      1.0000     -0.0000
                -.0458      0.0000      0.0000     -0.0000      0.0000     -0.0000
                -.0075     -0.0000     -0.0000      0.0000     -0.0000      0.0000
                  .0200     -0.0000      0.0000      0.0000     -0.0000     -0.0000
-----------------------------------------------------------------------------------
Load Case # 10 (omitting Web Frame)             Pressure (MPa)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                -.0296      0.0000     -0.0000     -0.0000     -0.0000      0.0000
                -.1657     -0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer          .3148      0.0000     -0.0000      0.0000     -0.0000      0.0000
                -.0342      0.0000      0.0000     -0.0000      1.0000     -0.0000
                  .0003     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
                  .0256     -0.0000      0.0000      0.0000      0.0000     -0.0000
-----------------------------------------------------------------------------------
Load Case # 11 (omitting Web Frame)             Pressure (MPa)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                -.0276      0.0000      0.0000     -0.0000     -0.0000      0.0000
                -.1314     -0.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer          .2662      0.0000      0.0000     -0.0000      0.0000      0.0000
                -.0115     -0.0000     -0.0000     -0.0000      0.0000      0.0000
                  .0095      0.0000     -0.0000     -0.0000      1.0000     -0.0000
                  .0281     -0.0000      0.0000      0.0000     -0.0000      0.0000
-----------------------------------------------------------------------------------
Load Case # 12 (omitting Web Frame)             Pressure (MPa)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                -.0261      0.0000      0.0000     -0.0000     -0.0000      0.0000
                -.0727     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
Stringer          .1818      0.0000      0.0000     -0.0000      0.0000      0.0000
                  .0152     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
                  .0170      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
                  .0273     -0.0000      0.0000     -0.0000      1.0000     -0.0000
-----------------------------------------------------------------------------------
```

```
Load Case # 13 (omitting Web Frame)          Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.0246     0.0000     -0.0000      1.0000     -0.0000      0.0000
             -.1710    -0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer      .4213     0.0000      0.0000      0.0000     -0.0000      0.0000
             -.0481     0.0000      0.0000      0.0000     -0.0000      0.0000
             -.0027     0.0000     -0.0000     -0.0000      0.0000     -0.0000
              .0312    -0.0000      0.0000     -0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 14 (omitting Web Frame)          Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.0504    -0.0000      0.0000     -0.0000      0.0000     -0.0000
             -.3024     0.0000     -0.0000      1.0000     -0.0000      0.0000
Stringer      .6160    -0.0000      0.0000     -0.0000      0.0000     -0.0000
             -.0866     0.0000     -0.0000     -0.0000     -0.0000     -0.0000
             -.0108     0.0000     -0.0000      0.0000      0.0000      0.0000
              .0413    -0.0000      0.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 15 (omitting Web Frame)          Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.0745     0.0000     -0.0000      0.0000     -0.0000     -0.0000
             -.3984    -0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer      .7629    -0.0000     -0.0000      1.0000     -0.0000      0.0000
             -.1102     0.0000      0.0000     -0.0000      0.0000      0.0000
             -.0120    -0.0000      0.0000     -0.0000      0.0000      0.0000
              .0523     0.0000     -0.0000      0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 16 (omitting Web Frame)          Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.0745    -0.0000      0.0000     -0.0000      0.0000     -0.0000
             -.4210     0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      .7834    -0.0000      0.0000     -0.0000      0.0000      0.0000
             -.1121     0.0000     -0.0000      1.0000      0.0000      0.0000
             -.0056    -0.0000      0.0000      0.0000     -0.0000     -0.0000
              .0607     0.0000      0.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 17 (omitting Web Frame)          Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.0572     0.0000      0.0000     -0.0000     -0.0000      0.0000
             -.3617     0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      .6563    -0.0000      0.0000     -0.0000     -0.0000     -0.0000
             -.0836     0.0000     -0.0000      0.0000      0.0000      0.0000
              .0049     0.0000      0.0000      1.0000     -0.0000     -0.0000
              .0620    -0.0000     -0.0000      0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 18 (omitting Web Frame)          Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.0335    -0.0000      0.0000     -0.0000      0.0000     -0.0000
             -.2466     0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      .4457    -0.0000      0.0000     -0.0000      0.0000     -0.0000
             -.0358    -0.0000      0.0000      0.0000      0.0000     -0.0000
              .0146     0.0000     -0.0000     -0.0000      0.0000     -0.0000
              .0554    -0.0000      0.0000      1.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
```

```
Load Case # 19 (omitting Web Frame)          Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.1103      0.0000      1.0000     -0.0000     -0.0000     -0.0000
              -.3327     -0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer       .7313     -0.0000      0.0000      0.0000     -0.0000      0.0000
              -.0864     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
               .0037      0.0000     -0.0000      0.0000      0.0000     -0.0000
               .0587     -0.0000      0.0000     -0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 20 (omitting Web Frame)          Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.1300      0.0000      0.0000     -0.0000     -0.0000     -0.0000
              -.5625     -0.0000      1.0000      0.0000     -0.0000      0.0000
Stringer      1.1232     -0.0000      0.0000      0.0000     -0.0000      0.0000
              -.1635     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
              -.0072      0.0000      0.0000     -0.0000      0.0000     -0.0000
               .0809     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 21 (omitting Web Frame)          Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.1651     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
              -.6986      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      1.4320      0.0000      1.0000      0.0000     -0.0000     -0.0000
              -.2251      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
              -.0150     -0.0000      0.0000     -0.0000      0.0000      0.0000
               .0984      0.0000     -0.0000      0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 22 (omitting Web Frame)          Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.1921     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
              -.6892      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      1.4706     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
              -.2820     -0.0000      1.0000      0.0000     -0.0000      0.0000
              -.0305     -0.0000     -0.0000     -0.0000      0.0000      0.0000
               .0965      0.0000     -0.0000      0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 23 (omitting Web Frame)          Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.1849     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              -.5565      0.0000     -0.0000      0.0000      0.0000      0.0000
Stringer      1.2253     -0.0000      0.0000      0.0000     -0.0000      0.0000
              -.2497     -0.0000      0.0000      0.0000     -0.0000      0.0000
              -.0340     -0.0000      1.0000      0.0000      0.0000     -0.0000
               .0734     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 24 (omitting Web Frame)          Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.1325     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              -.3660      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer       .8192     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              -.1525     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
              -.0154      0.0000     -0.0000      0.0000      0.0000      0.0000
               .0416     -0.0000      1.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
```

```
Load Case # 25 (omitting Web Frame)          Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               .1161      1.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.4113      0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer       .0436      0.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.1336     -0.0000      0.0000     -0.0000     -0.0000      0.0000
               .0119      0.0000     -0.0000     -0.0000      0.0000      0.0000
               .0931     -0.0000     -0.0000      0.0000     -0.0000      0.0000
---------------------------------------------------------------------------------
Load Case # 26 (omitting Web Frame)          Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               .0653     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              -.5197      1.0000     -0.0000     -0.0000     -0.0000      0.0000
Stringer      1.5273      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
              -.2503     -0.0000      0.0000     -0.0000      0.0000      0.0000
               .0150     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
               .1444      0.0000     -0.0000      0.0000      0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 27 (omitting Web Frame)          Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.2249     -0.0000     -0.0000      0.0000      0.0000     -0.0000
              -.9795     -0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer      2.1603      1.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.2592      0.0000     -0.0000      0.0000     -0.0000      0.0000
               .0029     -0.0000      0.0000     -0.0000      0.0000      0.0000
               .1660     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 28 (omitting Web Frame)          Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.4026     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.8031      0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer      1.0497      0.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.0980      1.0000     -0.0000      0.0000     -0.0000     -0.0000
               .1587     -0.0000      0.0000     -0.0000      0.0000      0.0000
               .1421     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 29 (omitting Web Frame)          Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.5247     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.5683      0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer      1.4387     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.2950     -0.0000      0.0000      0.0000      0.0000     -0.0000
               .2697      1.0000     -0.0000     -0.0000      0.0000      0.0000
               .2338     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
---------------------------------------------------------------------------------
Load Case # 30 (omitting Web Frame)          Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              -.4700     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              -.3723      0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer      1.0276     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
              -.3325     -0.0000      0.0000      0.0000      0.0000     -0.0000
               .0205     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
               .3017      1.0000     -0.0000      0.0000      0.0000     -0.0000
---------------------------------------------------------------------------------
```

```
Load Case # 31 (omitting Web Frame)           Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            1.0000      .2317     -.1229      -.0516       .0203      -.0190
             .5644     -.0300      .0455       .0370      -.0065       .0153
Stringer   -.1409      .0445     -.0302       .0295      -.0346      -.0150
           -.0026      .0011      .0023       .0026      -.0053      -.0042
             .0392     -.0039      .0049      -.0045       .0040       .0034
             .0555     -.0006     -.0016       .0019      -.0019      -.0000
--------------------------------------------------------------------------------
Load Case # 32 (omitting Web Frame)           Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             .5749     -.1720     -.1649      -.0031       .0107      -.0320
            1.0000      .2665      .0571       .0026      -.0010       .0244
Stringer    .3731     -.0511      .0004       .0567      -.0712      -.0140
           -.0025      .0093      .0050      -.0000      -.0004      -.0057
             .0662     -.0070      .0049      -.0040       .0005       .0042
             .1057      .0016     -.0023       .0020      -.0033      -.0007
--------------------------------------------------------------------------------
Load Case # 33 (omitting Web Frame)           Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -.0340     -.0416     -.5109       .2059      -.0100      -.0320
           -.4844      .0233      .3010      -.1405       .0192       .0237
Stringer   1.0000      .1652     -.1356       .1416      -.1046       .0007
             .2509      .0204      .0015       .0003      -.0092      -.0047
             .0604     -.0120      .0131      -.0077       .0101       .0030
             .1303      .0065     -.0057       .0020      -.0039      -.0002
--------------------------------------------------------------------------------
Load Case # 34 (omitting Web Frame)           Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -.3022      .1509     -.6301       .2543      -.0230      -.0272
           -.4326     -.1042      .3056      -.1771       .0222       .0193
Stringer   -.3621      .0561     -.1035       .1025      -.1100       .0001
            1.0000      .1657     -.0235       .0160      -.0133      -.0032
             .7342      .0022      .0072      -.0163       .0123       .0020
             .1050      .0141     -.0100       .0075      -.0053       .0003
--------------------------------------------------------------------------------
Load Case # 35 (omitting Web Frame)           Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -.4966      .0122     -.3470       .1530      -.0000      -.0132
           -.1777     -.0269      .2136      -.1000       .0127       .0093
Stringer   -.4609      .0927     -.0996       .1001      -.0723       .0032
           -.0470      .0717     -.0026       .0149      -.0115      -.0027
            1.0000      .0006     -.0103      -.0127       .0100       .0021
             .7414      .0577     -.0172       .0102      -.0054      -.0001
--------------------------------------------------------------------------------
Load Case # 36 (omitting Web Frame)           Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           -.4674      .0751     -.2032       .1315      -.0050      -.0044
           -.1712     -.0543      .1697      -.0921       .0070       .0030
Stringer   -.1716      .0342     -.0760       .0064      -.0579       .0052
           -.3001      .1200     -.0203       .0109      -.0112      -.0019
             .0340     -.1203      .0219      -.0197       .0102       .0016
            1.0000      .2224     -.0466       .0153      -.0060      -.0006
--------------------------------------------------------------------------------
```

```
Load Case # 37 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            -2.5360     1.2835     -1.0671     1.6900       .9834       .0714
            -9.3610     1.0744      2.1724      .5220      1.0535      1.0951
Stringer    21.2514     1.3416       .4756     1.6048       .5406       .9074
            -2.3369     1.3969       .9663     1.0521       .9410       .9777
             2.3236      .9396      1.0337      .9343      1.0559      1.0163
             4.2159     1.3017       .9166     1.0390       .9743       .9970
--------------------------------------------------------------------------------
Load Case # 38 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.0269     0.0000     -0.0000     0.0000      0.0000      1.0000
             -.0905    -0.0000      0.0000    -0.0000     -0.0000      1.0000
Stringer      .2503     0.0000     -0.0000     0.0000      0.0000      1.0000
             -.0034    -0.0000     -0.0000     0.0000     -0.0000      1.0000
              .0090     0.0000      0.0000    -0.0000      0.0000      1.0000
              .0296     0.0000     -0.0000     0.0000     -0.0000      1.0000
--------------------------------------------------------------------------------
Load Case # 39 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.3146    -0.0000      0.0000     1.0000     -0.0000     -0.0000
            -1.9811     0.0000     -0.0000     1.0000      0.0000      0.0000
Stringer     3.6057    -0.0000      0.0000     1.0000     -0.0000     -0.0000
             -.4764     0.0000      0.0000     1.0000      0.0000     -0.0000
             -.0115     0.0000     -0.0000     1.0000     -0.0000      0.0000
              .3029    -0.0000      0.0000     1.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 40 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             -.7064     0.0000     -0.0000     2.5000     -0.0000      0.0000
            -4.7527    -0.0000      0.0000     2.5000      0.0000     -0.0000
Stringer     9.2143     0.0000     -0.0000     2.5000      0.0000      0.0000
            -1.1909    -0.0000     -0.0000     2.5000     -0.0000      0.0000
             -.0200     0.0000      0.0000     2.5000      0.0000     -0.0000
              .7573    -0.0000     -0.0000     2.5000     -0.0000      0.0000
--------------------------------------------------------------------------------
Load Case # 41 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            -1.4400     1.0000     -0.0000     0.0000     -0.0000      0.0000
            -3.7341     1.0000      0.0000    -0.0000      0.0000      0.0000
Stringer     0.0471     1.0000      0.0000     0.0000     -0.0000     -0.0000
            -1.3654     1.0000     -0.0000    -0.0000     -0.0000     -0.0000
              .4700     1.0000      0.0000     0.0000      0.0000      0.0000
             1.0019     1.0000     -0.0000    -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
Load Case # 42 (omitting Web Frame)            Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              .9973     1.2317      .0771      .9404      1.0203       .9810
             -.4320     -.0600      .0455      .0370      -.0065       .0153
Stringer     2.0060      .0445     -.0302      .0295      -.0346      -.0150
             -.3000      .0011      .0023      .0026      -.0053      -.0042
              .0411     -.0039      .0049     -.0045       .0040       .0034
              .2400     -.0006     -.0016      .0019      -.0019      -.0000
--------------------------------------------------------------------------------
```

Load Case # 43 (omitting Web Frame)   Pressure (MPa)

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
Stringer	-.5277	-.0416	-.5109	.2059	-.0180	-.0320
	-2.7550	.0233	.3010	-.1405	.0192	.0237
	5.7103	1.1652	.0644	1.1416	.0954	1.0007
	-.4016	.0204	.0015	.0003	-.0092	-.0047
	.0325	-.0120	.0131	-.0077	.0101	.0030
	.4789	.0065	-.0057	.0028	-.0039	-.0002

Load Case # 44 (omitting Web Frame)   Pressure (MPa)

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
Stringer	-1.3046	.0122	-.3470	.1530	-.0088	-.0132
	-1.0060	-.0269	.2136	-.1088	.0127	.0093
	3.1744	.0927	-.0996	.1081	-.0723	.0032
	-.6784	.0717	-.0026	.0149	-.0115	-.0027
	1.2586	1.0806	.9817	.9873	1.0100	1.0021
	1.1484	.0577	-.0172	.0102	-.0054	-.0001

Load Case # 45 (omitting Web Frame)   Pressure (MPa)

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
Stringer	-.0180	-0.0000	-0.0000	0.0000	0.0000	-0.0000
	-3.1360	0.0000	0.0000	-0.0000	0.0000	0.0000
	6.4758	0.0000	-0.0000	0.0000	-0.0000	-0.0000
	-1.1370	-0.0000	1.5000	1.0000	0.0000	-0.0000
	-.1005	0.0000	1.9000	1.4000	.9000	0.0000
	.4571	-0.0000	-0.0000	0.0000	-0.0000	-0.0000

Load Case # 46 (omitting Web Frame)   Pressure (MPa)

	Frame 62.0	Frame 61.5	Frame 61.0	Frame 60.5	Frame 60.0	Frame 59.5
Stringer	-.9660	0.0000	-0.0000	0.0000	-0.0000	0.0000
	-1.8153	-0.0000	0.0000	-0.0000	1.5000	1.5000
	4.0043	0.0000	-0.0000	0.0000	1.4000	1.4000
	-.8831	-0.0000	0.0000	-0.0000	0.0000	0.0000
	.1423	.7500	.7500	0.0000	-0.0000	-0.0000
	.5071	.6500	.6500	-0.0000	-0.0000	0.0000

APPENDIX E

Approximate Single Panel Pressures Calculated From the 30 Load Cases Supplied by the FE Contractor

```
LOAD CASE 1 (MARTEC's calibration strains)        Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .40         .75        1.70        1.85       -5.30
             0.00         .55         .90        5.30        2.30       -6.05
             0.00        1.65        2.85        1.25         .25      -24.10
Stringer          -1.50       -1.30       -2.70       -1.90         .15
             0.00       -2.30       -4.95       -7.00         .50       79.45
             0.00        -.95        -.75       -3.55       -2.25       56.95
             0.00        -.85       -1.15       -2.00       -5.15        7.10
             0.00         .10       -1.75        -.15      -14.75      -92.40
-------------------------------------------------------------------------------
LOAD CASE 1 (MARTEC's calibration strains)        Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .07         .14         .31         .34        -.97
             0.00         .10         .16         .97         .42       -1.11
             0.00         .30         .52         .23         .05       -4.40
Stringer           -.82        -.71       -1.48       -1.04         .08
             0.00        -.42        -.90       -1.28         .09       14.52
             0.00        -.17        -.14        -.65        -.41       10.41
             0.00        -.16        -.21        -.37        -.94        1.30
             0.00         .02        -.32        -.03       -2.70      -16.88
-------------------------------------------------------------------------------
Approximate single panel pressure    1.019 MPa
-------------------------------------------------------------------------------
LOAD CASE 1 (MARTEC's calibration strains)        Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .03         .03         .66         .08        -.14
             0.00         .20         .36        -.74        -.37       -3.30
Stringer     0.00        -.61       -2.19       -1.07        1.17       18.92
             0.00         .25         .77         .63        -.50       -4.11
             0.00         .02        -.07         .28        -.53       -9.11
             0.00         .17        -.11         .34       -1.75      -18.18
-------------------------------------------------------------------------------
LOAD CASE 1 (MARTEC's calibration strains)        Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
           0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
Stringer   0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
           0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
           0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
           0.0000     -0.0000      0.0000     -0.0000      0.0000      1.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 2 (MARTEC's calibration strains)       Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         .80        1.60        3.35        3.45       -6.25
               0.00        1.10        1.80        9.20        4.05       -6.65
               0.00        2.75        5.05        2.55        3.20      -28.65
Stringer            -2.55       -2.30       -4.45       -3.40        1.00
               0.00       -3.85       -8.50      -10.30         .15      126.90
               0.00       -1.55       -1.00       -4.10       -5.75       46.85
               0.00       -1.50       -1.80       -2.60      -10.45      -41.40
               0.00         .15       -2.90        -.05      -16.25      -91.15
--------------------------------------------------------------------------------
LOAD CASE 2 (MARTEC's calibration strains)       Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         .15         .29         .61         .63       -1.14
               0.00         .20         .33        1.68         .74       -1.22
               0.00         .50         .92         .47         .58       -5.24
Stringer            -1.40       -1.26       -2.44       -1.86         .55
               0.00        -.70       -1.55       -1.88         .03       23.19
               0.00        -.28        -.18        -.75       -1.05        8.56
               0.00        -.27        -.33        -.48       -1.91       -7.57
               0.00         .03        -.53        -.01       -2.97      -16.66
--------------------------------------------------------------------------------
Approximate single panel pressure    1.114 MPa
--------------------------------------------------------------------------------
LOAD CASE 2 (MARTEC's calibration strains)       Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         .05         .04        1.07         .11        -.07
               0.00         .30         .59       -1.22        -.16       -4.02
Stringer       0.00       -1.07       -3.66       -1.77        1.86       28.42
               0.00         .42        1.37        1.13       -1.08      -14.63
               0.00         .01        -.15         .27        -.86      -16.13
               0.00         .30        -.20         .47       -1.06       -9.09
--------------------------------------------------------------------------------
LOAD CASE 2 (MARTEC's calibration strains)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
             0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
             0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
             0.0000      0.0000     -0.0000      0.0000      0.0000      1.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
--------------------------------------------------------------------------------
```

```
LOAD CASE 3 (MARTEC's calibration strains)        Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        1.20        2.60        4.75        5.35       -1.65
             0.00        1.45        2.80       12.05        5.80       -2.25
             0.00        3.70        7.05        3.80        8.20      -14.15
Stringer          -3.35       -3.20       -5.65       -5.15        2.20
             0.00       -5.10      -10.95      -11.55       -9.70       78.30
             0.00       -2.05        -.90       -4.35      -10.15       -5.30
             0.00       -2.00       -2.15       -4.10      -10.65      -41.45
             0.00         .30       -3.65         .10      -12.70      -47.35
-------------------------------------------------------------------------------
LOAD CASE 3 (MARTEC's calibration strains)        Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .22         .48         .87         .98        -.30
             0.00         .26         .51        2.20        1.06        -.41
             0.00         .68        1.29         .69        1.50       -2.59
Stringer          -1.84       -1.76       -3.10       -2.82        1.21
             0.00        -.93       -2.00       -2.11       -1.77       14.31
             0.00        -.37        -.16        -.79       -1.85        -.97
             0.00        -.37        -.39        -.75       -1.95       -7.57
             0.00         .05        -.67         .02       -2.32       -8.65
-------------------------------------------------------------------------------
Approximate single panel pressure     .830 MPa
-------------------------------------------------------------------------------
LOAD CASE 3 (MARTEC's calibration strains)        Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .05         .04        1.33         .08        -.11
             0.00         .41         .78       -1.51         .44       -2.17
Stringer     0.00       -1.53       -4.63       -2.53         .76       16.89
             0.00         .56        1.84        1.32        -.08      -15.28
             0.00         .01        -.23         .05        -.09       -6.61
             0.00         .42        -.27         .77        -.37       -1.00
-------------------------------------------------------------------------------
LOAD CASE 3 (MARTEC's calibration strains)        Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
           0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer   0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
           0.0000     -0.0000     -0.0000     -0.0000     -0.0000      1.0000
           0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
           0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 4 (MARTEC's calibration strains)        Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        1.40        3.25        5.40        6.75       10.80
             0.00        1.50        3.35       12.65        8.35        9.05
             0.00        3.85        7.65        4.65       13.15       -8.30
Stringer          -3.60       -3.75       -5.85       -6.95        -.10
             0.00       -5.55      -10.90      -11.75      -15.05       -8.15
             0.00       -2.30        -.65       -5.30       -8.65      -13.85
             0.00       -2.25       -2.05       -5.70       -7.10       -9.55
             0.00         .45       -3.55         .15       -7.65      -10.55
-------------------------------------------------------------------------------
LOAD CASE 4 (MARTEC's calibration strains)        Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .26         .59         .99        1.23        1.97
             0.00         .27         .61        2.31        1.53        1.65
             0.00         .70        1.40         .85        2.40       -1.52
Stringer          -1.97       -2.06       -3.21       -3.81        -.05
             0.00       -1.01       -1.99       -2.15       -2.75       -1.49
             0.00        -.42        -.12        -.97       -1.58       -2.53
             0.00        -.41        -.37       -1.04       -1.30       -1.75
             0.00         .08        -.65         .03       -1.40       -1.93
-------------------------------------------------------------------------------
Approximate single panel pressure     .533 MPa
-------------------------------------------------------------------------------
LOAD CASE 4 (MARTEC's calibration strains)        Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .02         .02        1.32         .29        -.32
             0.00         .43         .79       -1.46         .88       -3.17
Stringer     0.00       -1.80       -4.54       -3.60       -1.40         .03
             0.00         .59        1.87        1.18        1.17       -1.04
             0.00         .01        -.26        -.07         .28         .79
             0.00         .49        -.27        1.07        -.10        -.18
-------------------------------------------------------------------------------
LOAD CASE 4 (MARTEC's calibration strains)        Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
           0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer   0.0000      0.0000      0.0000      0.0000      0.0000      1.0000
           0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
           0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
           0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 5 (MARTEC's calibration strains)         Micro Strain

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00        1.25        3.10        4.95        6.15       30.15
              0.00        1.25        3.05       11.75        6.35       -9.35
              0.00        3.10        6.30        6.40        1.75     -115.75
Stringer            -2.80       -3.05       -4.35       -6.70       -4.65
              0.00       -4.50       -8.45       -9.75       -8.35        2.45
              0.00       -1.85        -.25       -4.70       -5.70       -2.60
              0.00       -1.80       -1.50       -5.30       -4.50        2.85
              0.00         .50       -2.70         .25       -4.55        2.35
---------------------------------------------------------------------------------
LOAD CASE 5 (MARTEC's calibration strains)         Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00         .23         .57         .90        1.12        5.51
              0.00         .23         .56        2.15        1.16       -1.71
              0.00         .57        1.15        1.17         .32      -21.15
Stringer            -1.54       -1.67       -2.39       -3.67       -2.55
              0.00        -.82       -1.54       -1.78       -1.53         .45
              0.00        -.34        -.05        -.86       -1.04        -.48
              0.00        -.33        -.27        -.97        -.82         .52
              0.00         .09        -.49         .05        -.83         .43
---------------------------------------------------------------------------------
Approximate single panel pressure     .398 MPa
---------------------------------------------------------------------------------
LOAD CASE 5 (MARTEC's calibration strains)         Shear Force Difference (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00        0.00        -.01        1.24         .04       -7.22
              0.00         .34         .59        -.98        -.84      -19.44
Stringer      0.00       -1.53       -3.41       -4.24        -.72       21.60
              0.00         .48        1.50         .92         .48        -.92
              0.00         .01        -.23        -.11         .22        1.00
              0.00         .42        -.22        1.01        -.01        -.09
---------------------------------------------------------------------------------
LOAD CASE 5 (MARTEC's calibration strains)         Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000      1.0000
Stringer    0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
            0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
---------------------------------------------------------------------------------
```

```
LOAD CASE 6 (MARTEC's calibration strains)        Micro Strain

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00         .95        2.40        4.50        3.05       11.90
              0.00         .90        2.25        9.25        1.05      -53.05
              0.00        2.05        4.20        5.20       -3.80     -116.65
Stringer            -1.75       -1.90       -2.65       -4.65       -4.25
              0.00       -2.80       -5.20       -6.35       -4.45        9.40
              0.00       -1.15         .05       -3.15       -3.70         .85
              0.00       -1.15        -.90       -3.70       -2.85        4.95
              0.00         .40       -1.70         .35       -2.70        4.50
--------------------------------------------------------------------------------
LOAD CASE 6 (MARTEC's calibration strains)        Shear Force (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00         .17         .44         .82         .56        2.17
              0.00         .16         .41        1.69         .19       -9.69
              0.00         .37         .77         .95        -.69      -21.32
Stringer              -.96       -1.04       -1.45       -2.55       -2.33
              0.00        -.51        -.95       -1.16        -.81        1.72
              0.00        -.21         .01        -.58        -.68         .16
              0.00        -.21        -.16        -.68        -.52         .90
              0.00         .07        -.31         .06        -.49         .82
--------------------------------------------------------------------------------
Approximate single panel pressure     .130 MPa
--------------------------------------------------------------------------------
LOAD CASE 6 (MARTEC's calibration strains)        Shear Force Difference (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00        -.01        -.03         .87        -.37      -11.87
              0.00         .21         .36        -.74        -.89      -11.62
Stringer      0.00        -.97       -2.13       -3.21         .10       23.03
              0.00         .30         .96         .58         .14       -1.56
              0.00        0.00        -.17        -.10         .16         .75
              0.00         .28        -.15         .74         .03        -.08
--------------------------------------------------------------------------------
LOAD CASE 6 (MARTEC's calibration strains)        Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000     -0.0000     -0.0000      0.0000      1.0000
            0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
Stringer    0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
            0.0000     -0.0000     -0.0000     -0.0000     -0.0000      0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
-------- -----------------------------------------------------------------------
```

```
LOAD CASE 7 (MARTEC's calibration strains)        Micro Strain

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         .40        1.85        2.25       -4.55         .15
               0.00         .55        2.35         .35       -5.10         .70
               0.00        2.05        4.95        5.70      -22.60        -.50
Stringer          -2.50       -3.10       -3.45       -2.00        5.30
               0.00       -4.70       -8.50       -1.20       77.50        9.45
               0.00       -2.35       -2.20       -3.65       56.15        8.70
               0.00       -1.85       -1.05       -3.05        6.15       -1.30
               0.00        -.10        -.40        -.35      -94.05      -19.15
-------------------------------------------------------------------------------
LOAD CASE 7 (MARTEC's calibration strains)        Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         .07         .34         .41        -.83         .03
               0.00         .10         .43         .06        -.93         .13
               0.00         .37         .90        1.04       -4.13        -.09
Stringer          -1.37       -1.70       -1.89       -1.10        2.91
               0.00        -.86       -1.55        -.22       14.16        1.73
               0.00        -.43        -.40        -.67       10.26        1.59
               0.00        -.34        -.19        -.56        1.12        -.24
               0.00        -.02        -.07        -.06      -17.19       -3.50
-------------------------------------------------------------------------------
Approximate single panel pressure    1.238 MPa
-------------------------------------------------------------------------------
LOAD CASE 7 (MARTEC's calibration strains)        Shear Force Difference (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         .03         .09        -.35        -.10         .10
               0.00         .27         .48         .98       -3.20        -.22
Stringer       0.00       -1.56       -2.65        -.47       22.30        1.82
               0.00         .43        1.15        -.45       -3.90        -.14
               0.00         .09         .21         .11       -9.14       -1.83
               0.00         .32         .12         .49      -18.31       -3.26
-------------------------------------------------------------------------------
LOAD CASE 7 (MARTEC's calibration strains)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
             0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000     -0.0000     -0.0000      1.0000     -0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 8 (MARTEC's calibration strains)        Micro Strain

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        1.10        3.50        3.05       -4.90        1.30
             0.00        1.20        4.20        3.20       -5.05        2.15
             0.00        3.75        8.65        6.95      -25.75        3.00
Stringer          -4.30       -5.20       -6.05       -2.55        9.75
             0.00       -7.00      -12.45       -3.25      123.30       13.95
             0.00       -3.70       -2.35       -7.40       45.15        7.15
             0.00       -3.15       -1.30      -10.05      -42.95      -10.40
             0.00         .05       -2.00        -.15      -93.30      -22.15
--------------------------------------------------------------------------------
LOAD CASE 8 (MARTEC's calibration strains)        Shear Force (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .20         .64         .70        -.90         .24
             0.00         .22         .77         .50        -.92         .39
             0.00         .69        1.50        1.27       -4.71         .55
Stringer          -2.36       -2.05       -3.32       -1.40        5.35
             0.00       -1.43       -2.27        -.59       22.53        2.55
             0.00        -.68        -.43       -1.35        8.25        1.31
             0.00        -.58        -.24       -1.88       -7.85       -1.90
             0.00         .01        -.37        -.03      -17.05       -4.05
--------------------------------------------------------------------------------
Approximate single panel pressure    1.401 MPa
--------------------------------------------------------------------------------
LOAD CASE 8 (MARTEC's calibration strains)        Shear Force Difference (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .02         .13        -.12        -.03         .16
             0.00         .47         .81         .69       -3.70         .16
Stringer     0.00       -2.60       -4.32         .06       33.90        2.00
             0.00         .75        1.05        -.76      -14.20       -1.24
             0.00         .10         .19        -.63      -16.10       -3.21
             0.00         .50        -.13        1.96       -9.20       -2.15
--------------------------------------------------------------------------------
LOAD CASE 8 (MARTEC's calibration strains)        Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000      0.0000      0.0000      0.0000     -0.0000     -0.0000
           0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
Stringer   0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
           0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
           0.0000      0.0000      0.0000      0.0000      1.0000      0.0000
           0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
```

```
LOAD CASE 9 (MARTEC's calibration strains)          Micro Strain

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        1.50        4.95        6.15         .15        3.50
             0.00        2.05        5.00        0.60        -.15        4.05
             0.00        5.45       12.00        9.00      -10.25        9.55
Stringer          -5.90       -6.05       -0.45       -2.35       14.05
             0.00       -9.90      -14.00      -13.70       72.95        3.75
             0.00       -4.50       -1.00      -11.95       -7.95       -2.95
             0.00       -4.00       -2.05      -14.90      -43.00      -12.00
             0.00         .35       -4.20        -.10      -49.75      -14.95
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
LOAD CASE 9 (MARTEC's calibration strains)          Shear Force (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .35         .90        1.12         .03         .04
             0.00         .37        1.06        1.57        -.03         .05
             0.00        1.00        2.19        1.79       -1.07        1.75
Stringer          -3.24       -3.05       -4.63       -1.29        0.04
             0.00       -1.01       -2.07       -2.50       13.33         .09
             0.00        -.02        -.29       -2.10       -1.45        -.54
             0.00        -.73        -.37       -2.72       -7.97       -2.34
             0.00         .06        -.77        -.02       -9.09       -2.73
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
Approximate single panel pressure    1.322 MPa
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
LOAD CASE 9 (MARTEC's calibration strains)          Shear Force Difference (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .02         .16         .45        -.06         .21
             0.00         .62        1.13         .22       -1.06         .90
Stringer     0.00       -3.22       -5.06        -.95       24.53       -1.06
             0.00         .99        2.30         .32      -14.70       -1.22
             0.00         .09        -.00        -.54       -6.51       -1.00
             0.00         .70        -.39        2.70       -1.12        -.39
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
LOAD CASE 9 (MARTEC's calibration strains)          Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
           0.0000     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer   0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
           0.0000     -0.0000     -0.0000     -0.0000      1.0000     -0.0000
           0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
           0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=
LOAD CASE 10 (MARTEC's calibration strains)       Micro Strain

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                 0.00        2.20        5.75        8.30       12.75        6.75
                 0.00        2.55        6.45       19.20       11.40        8.05
                 0.00        6.10       13.15        2.80       -3.00       15.80
Stringer              -6.65       -6.75      -10.35       -4.75       16.85
                 0.00       -9.75      -15.90      -18.50      -14.15       -9.30
                 0.00       -4.20       -1.00      -10.30      -16.80       -5.65
                 0.00       -3.90       -3.15      -10.70      -11.85       -7.05
                 0.00         .60       -5.45        -.05      -12.95       -7.70
-------------------------------------------------------------------------------
LOAD CASE 10 (MARTEC's calibration strains)       Shear Force (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                 0.00         .40        1.05        1.52        2.33        1.23
                 0.00         .47        1.18        3.51        2.08        1.47
                 0.00        1.11        2.40         .51        -.55        2.89
Stringer              -3.65       -3.70       -5.68       -2.61        9.24
                 0.00       -1.78       -2.91       -3.38       -2.59       -1.70
                 0.00        -.77        -.18       -1.88       -3.07       -1.03
                 0.00        -.71        -.58       -1.96       -2.17       -1.29
                 0.00         .11       -1.00        -.01       -2.37       -1.41
-------------------------------------------------------------------------------
Approximate single panel pressure    1.190 MPa
-------------------------------------------------------------------------------
LOAD CASE 10 (MARTEC's calibration strains)       Shear Force Difference (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                 0.00        -.01         .13        1.89        -.25         .24
                 0.00         .05        1.22       -3.00       -2.78        1.42
Stringer         0.00       -2.95       -7.28        -.02        9.96       -4.50
                 0.00        1.01        2.72        1.50        -.48         .67
                 0.00         .05        -.39        -.07         .90        -.26
                 0.00         .02        -.42        1.95        -.20        -.12
-------------------------------------------------------------------------------
LOAD CASE 10 (MARTEC's calibration strains)       Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
               0.0000     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer       0.0000     -0.0000      0.0000      0.0000      1.0000      0.0000
               0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
               0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
               0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 11 (MARTEC's calibration strains)        Micro Strain

               Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                    0.00        2.15        5.25        8.65       31.75       10.95
                    0.00        2.10        6.60       17.95       -7.60        4.05
                    0.00        5.10       12.05      -20.00     -112.00       -1.70
Stringer                 -5.35       -5.00       -9.25       -8.35       14.10
                    0.00       -7.30      -13.55      -10.35       -2.25       -5.10
                    0.00       -3.05        -.25       -6.90       -5.05       -2.20
                    0.00       -3.06       -3.05       -7.00         .95       -3.65
                    0.00         .15       -4.90         .05         .45       -4.25
-------------------------------------------------------------------------------------
LOAD CASE 11 (MARTEC's calibration strains)        Shear Force (kN)

               Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                    0.00         .17         .96        1.58        5.80        2.00
                    0.00         .14        1.21        3.28       -1.39         .89
                    0.00         .13        2.35       -3.65      -20.61        -.31
Stringer                 -2.93       -2.74       -5.07       -4.58        7.73
                    0.00       -1.33       -2.48       -1.89        -.41        -.93
                    0.00        -.16        -.06       -1.26        -.92        -.40
                    0.00        -.16        -.56       -1.28         .17        -.67
                    0.00         .12        -.90         .01         .08        -.78
-------------------------------------------------------------------------------------
Approximate single panel pressure    1.129 MPa
-------------------------------------------------------------------------------------
LOAD CASE 11 (MARTEC's calibration strains)        Shear Force Difference (kN)

               Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                    0.00        -.03         .25        1.70       -7.19       -1.11
                    0.00         .19        1.14       -6.93      -19.22       -1.20
Stringer            0.00       -2.37       -7.16        2.26       32.51        -.62
                    0.00         .78        2.41         .63        -.51         .53
                    0.00        0.00        -.49        -.02        1.10        -.26
                    0.00         .18        -.34        1.29        -.09        -.11
-------------------------------------------------------------------------------------
LOAD CASE 11 (MARTEC's calibration strains)        Pressure (MPa)

               Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.0000       0.000     -0.0000      0.0000     -0.0000     -0.0000
                  0.0000      -0.000     -0.0000     -0.0000      1.0000      0.0000
Stringer          0.0000       0.000     -0.0000      0.0000     -0.0000      0.0000
                  0.0000      -0.000      0.0000     -0.0000      0.0000     -0.0000
                  0.0000       0.000     -0.0000     -0.0000     -0.0000     -0.0000
                  0.0000       0.000      0.0000     -0.0000      0.0000     -0.0000
-------------------------------------------------------------------------------------
```

```
LOAD CASE 12 (MARTEC's calibration strains)        Micro Strain

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00        2.05        4.75        4.90       12.90        9.25
               0.00        1.80        5.65        5.75      -52.15       -3.00
               0.00        3.40        9.45      -16.30     -115.00      -10.75
Stringer              -3.40       -3.00       -6.05       -6.65        9.10
               0.00       -4.45       -9.05       -5.75        6.45       -2.06
               0.00       -1.75         .10       -4.60        -.75       -1.15
               0.00       -1.90       -2.30       -4.25        3.80       -1.95
               0.00         .60       -3.45         .10        3.40       -2.25
--------------------------------------------------------------------------------
LOAD CASE 12 (MARTEC's calibration strains)        Shear Force (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         .37         .87         .90        2.36        1.69
               0.00         .33        1.03        1.05       -9.53        -.69
               0.00         .62        1.73       -2.98      -21.01       -1.96
Stringer              -1.86       -1.65       -3.32       -3.65        4.99
               0.00        -.81       -1.65       -1.05        1.18        -.37
               0.00        -.32         .02        -.84        -.14        -.21
               0.00        -.35        -.42        -.78         .69        -.36
               0.00         .11        -.63         .02         .62        -.41
--------------------------------------------------------------------------------
Approximate single panel pressure      .657 MPa
--------------------------------------------------------------------------------
LOAD CASE 12 (MARTEC's calibration strains)        Shear Force Difference (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00        -.05         .16         .16      -11.89       -2.38
               0.00         .29         .69       -4.03      -11.48       -1.27
Stringer       0.00       -1.22       -5.06        1.60       30.83        1.59
               0.00         .49        1.67         .21       -1.32         .16
               0.00        -.03        -.44         .06         .83        -.15
               0.00         .46        -.21         .79        -.07        -.05
--------------------------------------------------------------------------------
LOAD CASE 12 (MARTEC's calibration strains)        Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      0.0000     -0.0000      0.0000      1.0000      0.0000
             0.0000     -0.0000     -0.0000     -0.0000     -0.0000     -0.0000
Stringer     0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
             0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
             0.0000      0.0000     -0.0000     -0.0000     -0.0000     -0.0000
             0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
--------------------------------------------------------------------------------
```

```
LOAD CASE 13 (MARTEC's calibration strains)      Micro Strain

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00        1.10        2.05       -3.70         .40        1.50
                0.00        1.50        2.40      -20.55         .95        2.15
                0.00        3.55        1.45        2.90        -.40        5.55
Stringer            -4.45       -3.50       -3.00        2.00        6.50
                0.00       -6.75       -1.10       63.00        6.85       -4.30
                0.00       -3.15      -11.00       48.85        7.40       -2.45
                0.00       -1.60       -2.95       33.70       -1.85       -1.65
                0.00        -.10      -12.95      -11.55      -18.75        -.55
-----------------------------------------------------------------------------------
LOAD CASE 13 (MARTEC's calibration strains)      Shear Force (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00         .20         .37        -.68         .07         .27
                0.00         .27         .44       -3.76         .17         .39
                0.00         .65         .26         .53        -.07        1.01
Stringer            -2.44       -1.92       -1.65        1.64        3.57
                0.00       -1.23        -.20       12.75        1.25        -.79
                0.00        -.58       -2.01        8.89        1.35        -.45
                0.00        -.29        -.54        6.16        -.34        -.30
                0.00        -.02       -2.37       -2.11       -3.43        -.10
-----------------------------------------------------------------------------------
Approximate single panel pressure     .703 MPa
-----------------------------------------------------------------------------------
LOAD CASE 13 (MARTEC's calibration strains)      Shear Force Difference (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00         .07         .06       -3.08         .10         .12
                0.00         .37        -.17        4.29        -.25         .62
Stringer        0.00       -1.38        -.19       15.41        3.35       -1.80
                0.00         .66       -1.81       -3.86         .10         .34
                0.00         .20        1.47       -2.73       -1.09         .15
                0.00         .27       -1.83       -8.27       -3.08         .20
-----------------------------------------------------------------------------------
LOAD CASE 13 (MARTEC's calibration strains)      Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
Stringer      0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000     -0.0000     -0.0000
              0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
              0.0000      0.0000      0.0000      1.0000      0.0000      0.0000
-----------------------------------------------------------------------------------
```

```
LOAD CASE 14 (MARTEC's calibration strains)       Micro Strain

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00        2.35        4.95       -5.10        1.90        3.05
              0.00        3.10        4.80      -27.15        2.95        3.95
              0.00        6.75        7.40        0.00        3.90       10.55
Stringer           -8.20       -6.05       -4.80        6.05       12.20
              0.00      -10.75       -5.30      119.05       10.90       -7.15
              0.00       -4.20      -12.95       42.65        5.55       -3.45
              0.00       -2.40       -4.70      -33.05      -11.60       -2.60
              0.00         .30      -15.50       -9.60      -23.55       -1.80
---------------------------------------------------------------------------------
LOAD CASE 14 (MARTEC's calibration strains)       Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00         .43         .90        -.93         .35         .56
              0.00         .57         .88       -4.96         .54         .72
              0.00        1.23        1.35        0.00         .71        1.93
Stringer           -4.50       -3.32       -2.63        3.32        6.69
              0.00       -1.96        -.97       21.75        1.99       -1.31
              0.00        -.77       -2.37        7.79        1.01        -.63
              0.00        -.44        -.86       -6.04       -2.12        -.48
              0.00         .05       -2.83       -1.75       -4.30        -.33
---------------------------------------------------------------------------------
Approximate single panel pressure    1.067 MPa
---------------------------------------------------------------------------------
LOAD CASE 14 (MARTEC's calibration strains)       Shear Force Difference (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00         .14        -.03       -4.03         .19         .16
              0.00         .67         .48        4.96         .17        1.21
Stringer      0.00       -2.02       -1.64       27.71        4.65       -3.23
              0.00        1.20       -1.40      -13.96        -.98         .68
              0.00         .33        1.51      -13.83       -3.13         .16
              0.00         .49       -1.97        4.29       -2.18         .15
---------------------------------------------------------------------------------
LOAD CASE 14 (MARTEC's calibration strains)       Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000      0.0000      0.0000     -0.0000     -0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
Stringer    0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000     -0.0000      1.0000      0.0000      0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
---------------------------------------------------------------------------------
```

```
LOAD CASE 15 (MARTEC's calibration strains)        Micro Strain

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00        3.55        7.05         .45        4.45        4.15
                  0.00        4.30        6.80      -16.60        5.75        5.35
                  0.00        9.25       12.65       13.40       11.30       14.15
Stringer       -10.80       -8.30       -5.50        9.95       16.15
                  0.00      -12.50      -15.40       68.20        -.10       -7.85
                  0.00       -4.65       -7.45       -9.95       -4.95       -3.40
                  0.00       -3.80       -4.95      -53.35      -14.55       -3.40
                  0.00         .70      -12.95       -4.10      -16.60       -3.65
----------------------------------------------------------------------------------
LOAD CASE 15 (MARTEC's calibration strains)        Shear Force (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00         .65        1.29         .08         .81         .76
                  0.00         .79        1.24       -3.03        1.05         .98
                  0.00        1.69        2.31        2.45        2.06        2.59
Stringer        -5.92       -4.55       -3.02        5.46        8.86
                  0.00       -2.28       -2.81       12.46        -.02       -1.43
                  0.00        -.85       -1.36       -1.82        -.90        -.62
                  0.00        -.69        -.90       -9.75       -2.66        -.62
                  0.00         .13       -2.37        -.75       -3.03        -.67
----------------------------------------------------------------------------------
Approximate single panel pressure    1.234 MPa
----------------------------------------------------------------------------------
LOAD CASE 15 (MARTEC's calibration strains)        Shear Force Difference (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00         .14        -.05       -3.12         .24         .22
                  0.00         .90        1.07        5.48        1.01        1.61
Stringer          0.00       -2.60       -3.59       18.49        1.32       -4.02
                  0.00        1.43        1.45      -14.28        -.89         .81
                  0.00         .16         .46       -7.93       -1.75        0.00
                  0.00         .82       -1.46        9.00        -.37        -.05
----------------------------------------------------------------------------------
LOAD CASE 15 (MARTEC's calibration strains)        Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
                0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer        0.0000     -0.0000     -0.0000      0.0000     -0.0000      0.0000
                0.0000      0.0000      0.0000      1.0000      0.0000      0.0000
                0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
                0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
----------------------------------------------------------------------------------
```

```
LOAD CASE 16 (MARTEC's calibration strains)       Micro Strain

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                    0.00        4.40        8.10       14.80        8.00        4.70
                    0.00        5.00        9.60       30.05        9.55        6.20
                    0.00        9.95       16.15      -38.20       18.85       15.40
Stringer                -11.50      -11.05       -8.50       12.05       17.65
                    0.00      -13.50      -23.40      -14.90      -13.35       -8.30
                    0.00       -5.85       -1.75      -17.65       -7.80       -3.55
                    0.00       -5.55       -5.80      -14.65       -8.80       -4.05
                    0.00         .80       -8.85       -1.45       -9.35       -5.05
--------------------------------------------------------------------------------------
LOAD CASE 16 (MARTEC's calibration strains)       Shear Force (kN)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                    0.00         .80        1.48        2.70        1.46         .86
                    0.00         .91        1.75        5.64        1.75        1.13
                    0.00        1.82        2.95       -6.98        3.44        2.81
Stringer                 -6.31       -6.06       -4.66        6.61        9.68
                    0.00       -2.47       -4.28       -2.72       -2.44       -1.52
                    0.00       -1.07        -.32       -3.23       -1.43        -.65
                    0.00       -1.01       -1.06       -2.68       -1.61        -.74
                    0.00         .15       -1.62        -.26       -1.71        -.92
--------------------------------------------------------------------------------------
Approximate single panel pressure    1.362 MPa
--------------------------------------------------------------------------------------
LOAD CASE 16 (MARTEC's calibration strains)       Shear Force Difference (kN)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                    0.00         .11         .27        2.93         .28         .27
                    0.00         .90        1.20      -12.62        1.70        1.68
Stringer            0.00       -4.04       -5.83       15.53       -2.81       -4.33
                    0.00        1.40        3.96        -.50        1.01         .87
                    0.00         .05        -.74         .55        -.18        -.09
                    0.00        1.16        -.56        2.41        -.10        -.18
--------------------------------------------------------------------------------------
LOAD CASE 16 (MARTEC's calibration strains)       Pressure (MPa)

                Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.0000     -0.0000      0.0000      0.0000      0.0000      0.0000
                  0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
Stringer          0.0000     -0.0000      0.0000      1.0000      0.0000     -0.0000
                  0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
                  0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
                  0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------------
```

```
LOAD CASE 17 (MARTEC's calibration strains)       Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00        4.30        7.10       39.50       12.00        4.20
              0.00        5.45        7.40       22.10        6.15        6.15
              0.00       10.15        3.50     -218.50        1.15       14.00
Stringer          -9.05      -10.55      -11.65        10.35       14.70
              0.00      -11.45      -15.25         .70       -8.00       -7.40
              0.00       -5.30        1.30       -5.05       -3.85       -2.65
              0.00       -5.30       -5.35       -1.10       -4.95       -3.25
              0.00         .80       -5.60         .10       -5.50       -4.55
-------------------------------------------------------------------------------
LOAD CASE 17 (MARTEC's calibration strains)       Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00         .79        1.30        7.22        2.19         .77
              0.00        1.00        1.35        4.04        1.12        1.12
              0.00        1.85         .64      -39.93         .21        2.56
Stringer          -4.96       -5.79       -6.39        5.68        8.06
              0.00       -2.09       -2.79         .13       -1.46       -1.35
              0.00        -.97         .24        -.92        -.70        -.48
              0.00        -.97        -.98        -.20        -.90        -.59
              0.00         .15       -1.02         .02       -1.01        -.83
-------------------------------------------------------------------------------
Approximate single panel pressure    1.378 MPa
-------------------------------------------------------------------------------
LOAD CASE 17 (MARTEC's calibration strains)       Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00         .21         .05       -3.18       -1.07         .36
              0.00         .86        -.71      -43.96        -.91        1.43
Stringer      0.00       -4.77       -4.03       52.12         .71       -3.91
              0.00        1.12        3.02       -1.05         .76         .87
              0.00        0.00       -1.22         .72        -.20        -.11
              0.00        1.11        -.06         .22        -.10        -.24
-------------------------------------------------------------------------------
LOAD CASE 17 (MARTEC's calibration strains)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000     -0.0000     -0.0000      0.0000     -0.0000     -0.0000
            0.0000      0.0000      0.0000      1.0000      0.0000      0.0000
Stringer    0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
            0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
            0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 18 (MARTEC's calibration strains)       Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        4.05        3.55       19.75        9.95        3.35
             0.00        4.80        1.55      -59.30       -3.00        4.75
             0.00        7.65       -3.10     -155.75       -9.15       10.50
Stringer          -5.55       -7.10       -8.35        6.65        9.35
             0.00       -7.30       -7.55        6.50       -3.95       -4.55
             0.00       -3.55        1.50       -1.45       -2.15       -1.30
             0.00       -3.70       -3.85        2.10       -2.75       -2.05
             0.00         .65       -3.40         .50       -3.05       -3.05
-------------------------------------------------------------------------------
LOAD CASE 18 (MARTEC's calibration strains)       Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .74         .65        3.61        1.82         .61
             0.00         .88         .28      -10.84        -.55         .87
             0.00        1.40        -.57      -28.46       -1.67        1.92
Stringer          -3.04       -3.89       -4.58        3.65        5.13
             0.00       -1.33       -1.38        1.19        -.72        -.83
             0.00        -.65         .27        -.26        -.39        -.24
             0.00        -.68        -.70         .38        -.50        -.37
             0.00         .12        -.62         .09        -.56        -.56
-------------------------------------------------------------------------------
Approximate single panel pressure     .843 MPa
-------------------------------------------------------------------------------
LOAD CASE 18 (MARTEC's calibration strains)       Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .14        -.37      -14.44       -2.37         .26
             0.00         .52        -.85      -17.62       -1.12        1.05
Stringer     0.00       -3.58       -1.50       37.88        2.43       -2.75
             0.00         .69        1.65       -1.45         .33         .59
             0.00        -.03        -.98         .65        -.11        -.14
             0.00         .79         .08        -.29        -.05        -.18
-------------------------------------------------------------------------------
LOAD CASE 18 (MARTEC's calibration strains)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000     -0.0000     -0.0000      1.0000     -0.0000     -0.0000
           0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
Stringer   0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
           0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
           0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
           0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 19 (MARTEC's calibration strains)      Micro Strain

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00        1.75       -3.50         .70        1.80         .65
                0.00        1.95       -3.85         .60        2.35        1.00
                0.00         .50      -17.25        2.60        5.95        3.15
Stringer             -6.00       -4.65        1.95        4.95        4.10
                0.00         .55       79.25        7.05       -6.25       -2.95
                0.00       -2.30       -7.95        7.30       -3.30        -.70
                0.00       -1.65       17.90        4.55       -2.35        -.95
                0.00        -.30      -86.70       -1.80       -1.15       -1.75
----------------------------------------------------------------------------------
LOAD CASE 19 (MARTEC's calibration strains)      Shear Force (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00         .32        -.64         .13         .33         .12
                0.00         .36        -.70         .11         .43         .18
                0.00         .09       -3.15         .48        1.09         .58
Stringer             -3.29       -2.55        1.07        2.71        2.25
                0.00         .10       14.48        1.29       -1.14        -.54
                0.00        -.42       -1.45        1.33        -.60        -.13
                0.00        -.30        3.27         .83        -.43        -.17
                0.00        -.05      -15.84        -.33        -.21        -.32
----------------------------------------------------------------------------------
Approximate single panel pressure    1.110 MPa
----------------------------------------------------------------------------------
LOAD CASE 19 (MARTEC's calibration strains)      Shear Force Difference (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00         .04        -.06        -.02         .10         .06
                0.00        -.26       -2.45         .37         .66         .39
Stringer        0.00         .75       21.25        2.46       -2.70       -1.11
                0.00        -.52      -15.93         .05         .54         .41
                0.00         .12        4.72        -.50         .17        -.05
                0.00         .25      -19.11       -1.16         .22        -.15
----------------------------------------------------------------------------------
LOAD CASE 19 (MARTEC's calibration strains)      Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
Stringer      0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
              0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
              0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
              0.0000      0.0000      1.0000     -0.0000      0.0000      0.0000
----------------------------------------------------------------------------------
```

```
LOAD CASE 20 (MARTEC's calibration strains)       Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        3.15       -1.70        2.80        3.60        1.50
             0.00        4.20       -2.90        4.90        4.70        2.20
             0.00        2.90      -13.40        5.65       11.75        6.50
Stringer         -12.15       -6.10        5.30        9.75        8.40
             0.00       -2.85      142.60        7.90      -10.40       -5.30
             0.00       -6.40      -17.15        4.55       -4.95       -1.65
             0.00       -9.75       -6.15       -5.50       -4.05       -2.30
             0.00         .25      -93.30       -1.90       -3.20       -3.30
-------------------------------------------------------------------------------
LOAD CASE 20 (MARTEC's calibration strains)       Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .58        -.31         .51         .66         .27
             0.00         .77        -.53         .90         .86         .40
             0.00         .53       -2.45        1.03        2.15        1.19
Stringer          -6.66       -3.35        2.91        5.35        4.61
             0.00        -.52       26.06        1.44       -1.90        -.97
             0.00       -1.17       -3.13         .83        -.90        -.30
             0.00       -1.78       -1.12       -1.01        -.74        -.42
             0.00         .05      -17.05        -.35        -.58        -.60
-------------------------------------------------------------------------------
Approximate single panel pressure    1.552 MPa
-------------------------------------------------------------------------------
LOAD CASE 20 (MARTEC's calibration strains)       Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .19        -.22         .38         .20         .13
             0.00        -.24       -1.92         .14        1.29         .79
Stringer     0.00        2.27       34.76        2.85       -4.79       -2.16
             0.00        -.65      -29.19        -.61        1.00         .67
             0.00        -.61        2.01       -1.84         .16        -.12
             0.00        1.83      -15.92         .66         .16        -.18
-------------------------------------------------------------------------------
LOAD CASE 20 (MARTEC's calibration strains)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
           0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
Stringer   0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
           0.0000      0.0000      0.0000     -0.0000     -0.0000     -0.0000
           0.0000     -0.0000      1.0000      0.0000      0.0000      0.0000
           0.0000      0.0000      0.0000     -0.0000      0.0000     -0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 21 (MARTEC's calibration strains)       Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        3.65        2.65        4.00        3.80        1.85
             0.00        4.10        1.65        7.55        4.95        2.55
             0.00        5.25        2.15        7.75       12.25        7.05
Stringer         -12.75       -4.15        6.30        9.99        9.00
             0.00       -8.65       66.55         .10       -9.25       -5.10
             0.00       -8.40      -16.15       -4.40       -4.15       -1.90
             0.00      -11.25      -11.05      -13.65       -3.85       -2.55
             0.00         .50      -35.85       -1.70       -3.90       -3.15
------------------------------------------------------------------------------
LOAD CASE 21 (MARTEC's calibration strains)       Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .67         .48         .73         .69         .34
             0.00         .75         .30        1.38         .90         .47
             0.00         .96         .39        1.42        2.24        1.29
Stringer          -6.99       -2.28        3.46        5.43        4.94
             0.00       -1.58       12.16         .02       -1.69        -.93
             0.00       -1.53       -2.95        -.80        -.76        -.35
             0.00       -2.06       -2.02       -2.49        -.70        -.47
             0.00         .09       -6.55        -.31        -.71        -.58
------------------------------------------------------------------------------
Approximate single panel pressure    1.128 MPa
------------------------------------------------------------------------------
LOAD CASE 21 (MARTEC's calibration strains)       Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .08        -.18         .65         .21         .13
             0.00         .21         .09         .04        1.33         .82
Stringer     0.00        2.18       17.50         .58       -4.42       -2.22
             0.00         .05      -15.11        -.82         .93         .58
             0.00        -.52         .93       -1.69         .05        -.12
             0.00        2.15       -4.53        2.18        -.01        -.11
------------------------------------------------------------------------------
LOAD CASE 21 (MARTEC's calibration strains)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
           0.0000      0.0000      0.0000      0.0000     -0.0000     -0.0000
Stringer   0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
           0.0000      0.0000      1.0000      0.0000     -0.0000      0.0000
           0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
           0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
------------------------------------------------------------------------------
```

```
LOAD CASE 22 (MARTEC's calibration strains)       Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        5.95       13.10        8.50        5.20        2.90
             0.00        7.25       11.70       18.85        6.80        3.85
             0.00       11.00       -2.30        7.10       16.35        9.80
Stringer         -17.50       -9.55        8.45       12.80       12.50
             0.00      -17.75      -18.00      -13.20      -10.55       -6.90
             0.00       -9.65       -6.25       -7.95       -4.80       -2.85
             0.00       -9.05       -8.95      -11.65       -5.00       -3.10
             0.00         .75      -12.50       -1.15       -5.90       -3.75
-------------------------------------------------------------------------------
LOAD CASE 22 (MARTEC's calibration strains)       Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        1.09        2.39        1.55         .95         .53
             0.00        1.32        2.14        3.44        1.24         .70
             0.00        2.01        -.42        1.30        2.99        1.79
Stringer          -9.60       -5.24        4.63        7.02        6.86
             0.00       -3.24       -3.29       -2.41       -1.93       -1.26
             0.00       -1.76       -1.14       -1.45        -.88        -.52
             0.00       -1.65       -1.64       -2.13        -.91        -.57
             0.00         .14       -2.28        -.21       -1.08        -.69
-------------------------------------------------------------------------------
Approximate single panel pressure    1.334 MPa
-------------------------------------------------------------------------------
LOAD CASE 22 (MARTEC's calibration strains)       Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00         .24        -.26        1.89         .29         .17
             0.00         .69       -2.56       -2.15        1.75        1.09
Stringer     0.00        -.89        7.00       -1.32       -5.08       -3.05
             0.00        1.48        2.15         .96        1.05         .74
             0.00         .11        -.49        -.68        -.04        -.05
             0.00        1.79        -.65        1.92        -.16        -.12
-------------------------------------------------------------------------------
LOAD CASE 22 (MARTEC's calibration strains)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
           0.0000      0.0000      0.0000     -0.0000     -0.0000      0.0000
Stringer   0.0000     -0.0000      1.0000     -0.0000      0.0000     -0.0000
           0.0000      0.0000     -0.0000      0.0000     -0.0000      0.0000
           0.0000     -0.0000      0.0000      0.0000      0.0000     -0.0000
           0.0000      0.0000     -0.0000     -0.0000     -0.0000      0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 23 (MARTEC's calibration strains)       Micro Strain

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00       11.00       37.20        8.00        2.95        1.45
                0.00        -.30        3.00       29.55        7.70        4.50
                0.00        1.65      -84.05      -13.20       12.60        6.05
Stringer             -15.50      -14.05        7.10       10.90       10.65
                0.00      -24.55      -10.60       -7.05      -10.35       -5.65
                0.00       -8.40       -4.10       -7.25       -4.90       -2.05
                0.00      -10.50       -9.35      -12.50       -5.45       -3.40
                0.00         .45       -4.30       -1.40       -3.05       -1.50
---------------------------------------------------------------------------------
LOAD CASE 23 (MARTEC's calibration strains)       Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00        2.01        6.80        1.46         .54         .26
                0.00        -.05         .55        5.40        1.41         .82
                0.00         .30      -15.36       -2.41        2.30        1.11
Stringer              -8.50       -7.71        3.89        5.98        5.84
                0.00       -4.49       -3.40       -1.43       -1.89       -1.03
                0.00       -1.53        -.75       -1.32        -.90        -.52
                0.00       -1.92       -1.71       -2.28       -1.00        -.62
                0.00         .08        -.79        -.26        -.56        -.27
---------------------------------------------------------------------------------
Approximate single panel pressure    1.340 MPa
---------------------------------------------------------------------------------
LOAD CASE 23 (MARTEC's calibration strains)       Shear Force Difference (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.00       -2.06       -6.25        3.94         .87         .56
                0.00         .36      -15.91       -7.81         .90         .28
Stringer        0.00       -3.99       23.56        3.06       -4.33       -2.14
                0.00        2.95        2.65         .11        1.00         .51
                0.00        -.38        -.96        -.96        -.10        -.10
                0.00        2.00         .92        2.03         .44         .35
---------------------------------------------------------------------------------
LOAD CASE 23 (MARTEC's calibration strains)       Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000      1.0000      0.0000     -0.0000      0.0000
Stringer      0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
              0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
              0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
---------------------------------------------------------------------------------
```

```
LOAD CASE 24 (MARTEC's calibration strains)       Micro Strain

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00        2.55       12.50       11.05        3.70        2.55
                  0.00         .55      -52.60        2.50        5.25        2.40
                  0.00       -5.10     -117.05      -21.05       11.35        5.00
Stringer              -10.35      -10.05        4.40        7.05        6.95
                  0.00       -6.30        5.00       -3.90       -5.55       -3.55
                  0.00       -4.00        3.75       -2.40       -2.00       -1.25
                  0.00       -3.05       -2.40       -4.30       -2.55       -1.15
                  0.00         .45        3.00        -.30       -3.50       -1.75
------------------------------------------------------------------------------------
LOAD CASE 24 (MARTEC's calibration strains)       Shear Force (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00         .47        2.20        2.02         .60         .47
                  0.00         .10       -9.61         .46         .96         .44
                  0.00        -.93      -21.53       -3.99        2.07         .91
Stringer               -5.60       -5.95        2.41        3.07        3.01
                  0.00       -1.15         .91        -.71       -1.01        -.65
                  0.00        -.80         .69        -.44        -.37        -.23
                  0.00        -.70        -.44        -.79        -.47        -.21
                  0.00         .00         .55        -.05        -.64        -.32
------------------------------------------------------------------------------------
Approximate single panel pressure     .777 MPa
------------------------------------------------------------------------------------
LOAD CASE 24 (MARTEC's calibration strains)       Shear Force Difference (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00        -.37      -11.90       -1.56         .20        -.03
                  0.00       -1.03      -11.92       -4.45        1.11         .40
Stringer          0.00        -.49       30.81        4.73       -3.14       -1.56
                  0.00         .27        -.23         .27         .65         .42
                  0.00         .17       -1.12        -.35        -.10         .02
                  0.00         .79         .99         .73        -.17        -.11
------------------------------------------------------------------------------------
LOAD CASE 24 (MARTEC's calibration strains)       Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.0000     -0.0000      1.0000      0.0000      0.0000      0.0000
                0.0000      0.0000      0.0000      0.0000      0.0000     -0.0000
Stringer        0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
                0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
                0.0000     -0.0000     -0.0000     -0.0000      0.0000      0.0000
                0.0000      0.0000      0.0000      0.0000      0.0000      0.0000
------------------------------------------------------------------------------------
```

```
LOAD CASE 25 (MARTEC's calibration strains)        Micro Strain

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                 0.00       -4.45         .55        1.60         .55         .30
                 0.00       -6.25        1.20        4.50         .85         .65
                 0.00      -21.65         .60        2.75        2.70        2.10
Stringer             -6.50        1.25        3.45        2.60        2.70
                 0.00       71.30        5.75       -5.20       -2.95       -1.15
                 0.00       49.65        1.80       -2.95        -.90        -.25
                 0.00       35.60        3.55       -2.65       -1.15        -.40
                 0.00      -11.45      -17.30        1.70       -1.90        -.75
---------------------------------------------------------------------------------
LOAD CASE 25 (MARTEC's calibration strains)        Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                 0.00        -.81         .10         .29         .10         .05
                 0.00       -1.14         .22         .82         .16         .12
                 0.00       -3.96         .11         .50         .49         .38
Stringer             -3.57         .69        1.89        1.43        1.48
                 0.00       13.03        1.05        -.95        -.54        -.21
                 0.00        9.07         .33        -.54        -.16        -.05
                 0.00        6.51         .65        -.48        -.21        -.07
                 0.00       -2.09       -3.16         .31        -.35        -.14
---------------------------------------------------------------------------------
Approximate single panel pressure     .503 MPa
---------------------------------------------------------------------------------
LOAD CASE 25 (MARTEC's calibration strains)        Shear Force Difference (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                 0.00        -.33         .12         .53         .05         .06
                 0.00       -2.81        -.11        -.32         .34         .26
Stringer         0.00       21.24        2.15       -1.92        -.98        -.59
                 0.00       -3.96        -.72         .41         .37         .16
                 0.00       -2.57         .32         .05        -.05        -.03
                 0.00       -8.60       -3.81         .79        -.14        -.06
---------------------------------------------------------------------------------
LOAD CASE 25 (MARTEC's calibration strains)        Pressure (MPa)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
               0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer       0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
               0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
               0.0000     -0.0000     -0.0000      0.0000      0.0000     -0.0000
               0.0000      1.0000      0.0000      0.0000     -0.0000     -0.0000
---------------------------------------------------------------------------------
```

```
LOAD CASE 26 (MARTEC's calibration strains)       Micro Strain

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00        -7.05        2.00        3.10        1.30         .75
               0.00        -7.45        2.90        8.25        1.75        1.20
               0.00       -31.60        5.45        5.25        5.20        3.95
Stringer          -11.35        2.70        6.35        4.90        5.00
               0.00       122.20        6.70       -8.30       -5.15       -2.15
               0.00        44.50         .65       -4.20       -1.85        -.60
               0.00       -30.40        -.90       -4.15       -2.35        -.90
               0.00        -9.00      -21.40        1.90       -3.20       -1.45
----------------------------------------------------------------------------------
LOAD CASE 26 (MARTEC's calibration strains)       Shear Force (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00        -1.29         .37         .57         .24         .14
               0.00        -1.36         .53        1.51         .32         .22
               0.00        -5.77        1.00         .96         .95         .72
Stringer           -6.23        1.48        3.48        2.69        2.74
               0.00        22.33        1.22       -1.52        -.94        -.39
               0.00         8.13         .12        -.77        -.34        -.11
               0.00        -5.55        -.16        -.76        -.43        -.16
               0.00        -1.64       -3.91         .35        -.58        -.26
----------------------------------------------------------------------------------
Approximate single panel pressure     .741 MPa
----------------------------------------------------------------------------------
LOAD CASE 26 (MARTEC's calibration strains)       Shear Force Difference (kN)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               0.00         -.07         .16         .94         .08         .08
               0.00        -4.41         .47        -.55         .63         .50
Stringer       0.00        35.81        2.23       -3.27       -1.84       -1.11
               0.00       -14.20       -1.11         .75         .60         .28
               0.00       -13.69        -.28         .01        -.09        -.05
               0.00         3.91       -3.75        1.11        -.16        -.10
----------------------------------------------------------------------------------
LOAD CASE 26 (MARTEC's calibration strains)       Pressure (MPa)

            Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
             0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer     0.0000     -0.0000      0.0000     -0.0000      0.0000      0.0000
             0.0000      0.0000      0.0000      0.0000     -0.0000     -0.0000
             0.0000      1.0000     -0.0000     -0.0000      0.0000     -0.0000
             0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
----------------------------------------------------------------------------------
```

```
LOAD CASE 27 (MARTEC's calibration strains)        Micro Strain

             Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00       -2.40        4.10        4.20        2.10        1.25
                  0.00       -3.35        5.05       10.50        2.85        1.85
                  0.00      -16.90       11.35        7.30        7.65        5.30
Stringer                -14.10        4.40        8.30        6.85        6.70
                  0.00       72.15        -.35       -9.05       -6.70       -3.10
                  0.00       -8.00       -3.35       -4.40       -2.80       -1.05
                  0.00      -50.10       -4.70       -4.75       -3.30       -1.40
                  0.00       -3.00      -14.65         .65       -3.90       -2.00
-------------------------------------------------------------------------------------
LOAD CASE 27 (MARTEC's calibration strains)        Shear Force (kN)

             Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00        -.44         .75         .77         .38         .23
                  0.00        -.61         .92        1.99         .52         .34
                  0.00       -3.09        2.07        1.33        1.40         .97
Stringer                 -7.73        2.41        4.55        3.76        3.67
                  0.00       13.18        -.06       -1.65       -1.22        -.57
                  0.00       -1.46        -.61        -.80        -.51        -.19
                  0.00       -9.15        -.86        -.87        -.60        -.26
                  0.00        -.55       -2.68         .12        -.71        -.37
-------------------------------------------------------------------------------------
Approximate single panel pressure     .851 MPa
-------------------------------------------------------------------------------------
LOAD CASE 27 (MARTEC's calibration strains)        Shear Force Difference (kN)

             Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  0.00        -.17         .17        1.22         .14         .11
                  0.00       -2.48        1.15        -.66         .88         .63
Stringer          0.00       26.42        0.00       -3.78       -2.70       -1.53
                  0.00      -14.65        -.55         .85         .71         .37
                  0.00       -7.69        -.25        -.06        -.09        -.06
                  0.00        8.61       -1.82         .99        -.11        -.11
-------------------------------------------------------------------------------------
LOAD CASE 27 (MARTEC's calibration strains)        Pressure (MPa)

             Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
                0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer        0.0000     -0.0000      0.0000     -0.0000      0.0000     -0.0000
                0.0000      1.0000      0.0000      0.0000     -0.0000      0.0000
                0.0000     -0.0000     -0.0000     -0.0000      0.0000     -0.0000
                0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------------
```

```
LOAD CASE 28 (MARTEC's calibration strains)       Micro Strain

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00       10.00        7.10        4.90        2.95        1.65
             0.00        8.25        8.30       12.10        3.80        2.25
             0.00      -10.95       16.25        8.60        9.45        5.95
Stringer         -17.70        4.80        8.85        8.20        7.65
             0.00      -14.40      -12.80       -9.50       -7.50       -4.05
             0.00      -16.75       -4.65       -4.70       -3.40       -1.65
             0.90      -11.90       -4.65       -5.70       -3.40       -1.80
             0.00        -.50       -8.20        -.70       -3.90       -2.25
-------------------------------------------------------------------------------
LOAD CASE 28 (MARTEC's calibration strains)       Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        1.83        1.30         .90         .54         .30
             0.00        1.51        1.52        2.21         .69         .41
             0.00       -2.00        2.97        1.57        1.73        1.09
Stringer          -9.71        2.63        4.85        4.50        4.20
             0.00       -2.63       -2.34       -1.74       -1.37        -.74
             0.00       -3.06        -.85        -.86        -.62        -.30
             0.00       -2.17        -.85       -1.04        -.62        -.33
             0.00        -.09       -1.50        -.13        -.71        -.41
-------------------------------------------------------------------------------
Approximate single panel pressure    1.064 MPa
-------------------------------------------------------------------------------
LOAD CASE 28 (MARTEC's calibration strains)       Shear Force Difference (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
             0.00        -.32         .22        1.32         .16         .11
             0.00       -3.51        1.45        -.64        1.03         .68
Stringer     0.00       11.71       -3.09       -3.66       -3.40       -1.83
             0.00        -.43        1.49         .88         .75         .44
             0.00         .89        0.00        -.18        0.00        -.03
             0.00        2.00        -.65         .91        -.09        -.08
-------------------------------------------------------------------------------
LOAD CASE 28 (MARTEC's calibration strains)       Pressure (MPa)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
           0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
           0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer   0.0000      1.0000      0.0000     -0.0000      0.0000     -0.0000
           0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
           0.0000      0.0000     -0.0000      0.0000      0.0000     -0.0000
           0.0000     -0.0000      0.0000      0.0000     -0.0000     -0.0000
-------------------------------------------------------------------------------
```

```
LOAD CASE 29 (MARTEC's calibration strains)       Micro Strain

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00       28.95       10.85        4.20        3.00        1.60
              0.00      -10.60        4.70       10.20        3.45        1.90
              0.00     -119.80       -2.25        9.50        7.55        4.65
Stringer          -19.35        3.60        7.20        6.80        6.15
              0.00       -2.40       -7.75       -7.90       -5.80       -3.45
              0.00       -4.80       -4.60       -3.45       -2.55       -1.50
              0.00         .90       -3.65       -4.70       -2.40       -1.50
              0.00         .75       -4.75       -1.10       -2.85       -1.80
--------------------------------------------------------------------------------
LOAD CASE 29 (MARTEC's calibration strains)       Shear Force (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00        5.29        1.98         .77         .55         .29
              0.00       -1.94         .86        1.86         .63         .35
              0.00      -21.89        -.41        1.74        1.38         .85
Stringer          -10.61        1.37        3.95        3.73        3.37
              0.00        -.44       -1.42       -1.44       -1.06        -.63
              0.00        -.88        -.84        -.63        -.47        -.27
              0.00         .16        -.67        -.86        -.44        -.27
              0.00         .14        -.87        -.20        -.52        -.33
--------------------------------------------------------------------------------
Approximate single panel pressure    1.214 MPa
--------------------------------------------------------------------------------
LOAD CASE 29 (MARTEC's calibration strains)       Shear Force Difference (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00       -7.23       -1.12        1.10         .08         .05
              0.00      -19.95       -1.27        -.13         .75         .50
Stringer      0.00       34.04         .97       -3.40       -2.80       -1.48
              0.00        -.44         .58         .81         .59         .36
              0.00        1.04         .17        -.23         .03        0.00
              0.00        -.03        -.20         .66        -.08        -.05
--------------------------------------------------------------------------------
LOAD CASE 29 (MARTEC's calibration strains)       Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      0.0000      0.0000     -0.0000      0.0000      0.0000
            0.0000      1.0000     -0.0000      0.0000      0.0000     -0.0000
Stringer    0.0000     -0.0000     -0.0000      0.0000      0.0000      0.0000
            0.0000     -0.0000      0.0000     -0.0000     -0.0000     -0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000     -0.0000     -0.0000
--------------------------------------------------------------------------------
```

```
LOAD CASE 30 (MARTEC's calibration strains)        Micro Strain

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00       10.70        8.90        3.20        2.45        1.25
              0.00      -54.50       -4.00        7.40        2.30        1.30
              0.00     -120.20      -11.65        7.95        4.50        2.85
Stringer          -13.85        2.05        4.60        4.35        3.90
              0.00        7.20       -3.25       -4.75       -3.55       -2.25
              0.00        -.20       -3.05       -1.80       -1.40        -.95
              0.00        4.40       -2.95       -3.00       -1.25        -.85
              0.00        1.00       -2.55       -1.00       -1.65       -1.05
--------------------------------------------------------------------------------
LOAD CASE 30 (MARTEC's calibration strains)        Shear Force (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00        1.96        1.63         .58         .45         .23
              0.00       -9.96        -.73        1.35         .42         .24
              0.00      -21.96       -2.13        1.45         .82         .52
Stringer           -7.60        1.12        2.52        2.39        2.14
              0.00        1.32        -.59        -.87        -.65        -.41
              0.00        -.04        -.56        -.33        -.26        -.17
              0.00         .80        -.54        -.55        -.23        -.16
              0.00         .18        -.47        -.18        -.30        -.19
--------------------------------------------------------------------------------
Approximate single panel pressure     .765 MPa
--------------------------------------------------------------------------------
LOAD CASE 30 (MARTEC's calibration strains)        Shear Force Difference (kN)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
              0.00      -11.91       -2.36         .77        -.03         .01
              0.00      -12.01       -1.40         .10         .40         .28
Stringer      0.00       32.00        2.93       -2.46       -1.72        -.93
              0.00       -1.35         .04         .54         .39         .24
              0.00         .84         .02        -.22         .03         .02
              0.00        -.62         .07         .37        -.07        -.04
--------------------------------------------------------------------------------
LOAD CASE 30 (MARTEC's calibration strains)        Pressure (MPa)

          Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
            0.0000      1.0000      0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
Stringer    0.0000      0.0000     -0.0000     -0.0000      0.0000      0.0000
            0.0000     -0.0000      0.0000      0.0000     -0.0000      0.0000
            0.0000      0.0000     -0.0000     -0.0000      0.0000     -0.0000
            0.0000      0.0000      0.0000      0.0000     -0.0000      0.0000
--------------------------------------------------------------------------------
```

APPENDIX F

Approximate Single Panel Pressures Calculated From Previous Calibration Data

```
1740C Calibration 1U normalized to 1 MPa          Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  .15        -.19         .18        -.19        -.37      -19.75
                 2.10        -.15         .45        -.62       -2.11       10.69
                  .96        -.28         .27        -.62        -.44        9.45
                       4.54        1.59        2.68        4.43        3.62
                 0.00         .06         .37         .37         .46        -.55
                 -.99         .19         .30         .45         .45        -.66
                 -.68        -.18        -.36         .47         .37        -.63
                 -.82         .26         .36         .43         .37        -.66
-------------------------------------------------------------------------------------
Approximate single panel pressure    1.083 MPa
-------------------------------------------------------------------------------------
```

```
1740C Calibration 1L normalized to 1 MPa          Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                  .34        -.32         .37        -.44         .58        3.02
                 2.68        -.28         .79       -1.18       -2.18        2.73
                 2.29        -.41         .47       -1.15         .22        2.06
                       5.41        3.59        4.02        9.15       15.62
                -1.67         .29         .43         .94       -1.17      -19.69
                -1.64         .14         .30         .68         .07      -20.90
                 -.68        -.20        -.43         .32        1.47       18.19
                 -.53         .40         .43         .25        2.09       16.13
-------------------------------------------------------------------------------------
Approximate single panel pressure     .290 MPa
-------------------------------------------------------------------------------------
```

```
1740C Calibration 3U normalized to 1 MPa          Shear Force (kN)

           Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
                 1.88        -.61        1.90       -8.23        -.42        -.25
                 6.59        -.55         .34      -15.66       -2.56       -1.12
                 5.09       -1.02        -.80       24.12         .10       -1.40
                       9.50       10.06       11.71       -9.12      -12.00
                -2.69         .68        1.30        -.09        1.05         .77
                -2.63         .76         .99        -.02        1.15         .72
                -2.37        -.67       -1.05         .03        1.08         .72
                -1.07         .67        1.00        -.08        1.02         .74
-------------------------------------------------------------------------------------
Approximate single panel pressure    1.598 MPa
-------------------------------------------------------------------------------------
```

```
1740C Calibration 3L normalized to 1 MPa          Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               3.85        -.60         .18        2.39         .69        -.28
               6.43        -.54        1.10        2.18       -1.70        -.95
               5.43        -.95         .96        2.67         .21        -.97
                     6.63       10.73       20.11       -6.51      -11.20
              -2.12         .77        -.35      -15.76       -1.48         .99
              -2.38         .56        -.68      -20.43        -.96         .81
              -1.64        -.20       -1.03       21.45         .99         .39
              -1.92         .12        1.76       17.43        2.89        -.03
-------------------------------------------------------------------------------
Approximate single panel pressure    1.853 MPa
-------------------------------------------------------------------------------


1740C Calibration 5U normalized to 1 MPa          Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               4.66       -9.50        1.59        -.49        -.02        -.07
              10.76       -5.65        1.03        -.84       -1.04        -.41
               8.81       25.48        -.32       -1.25         .11        -.50
                    20.57       -2.19       -8.21       -7.04       -3.71
              -3.94        -.31        1.21         .65         .48         .36
              -5.23        -.51         .91         .73         .57         .31
              -4.59         .34        -.93         .81         .54         .25
              -5.26        -.45         .80         .80         .54         .34
-------------------------------------------------------------------------------
Approximate single panel pressure    1.714 MPa
-------------------------------------------------------------------------------


1740C Calibration 5L normalized to 1 MPa          Shear Force (kN)

         Frame 62.0  Frame 61.5  Frame 61.0  Frame 60.5  Frame 60.0  Frame 59.5
               2.45        2.35        -.01        -.47         .11        -.11
               8.29        1.36         .72       -1.10       -1.17        -.43
               9.46        3.48         .96       -1.17         .10        -.51
                    24.76       -3.69       -8.41       -4.93       -2.96
              -2.38      -17.32       -1.21         .89         .38         .27
              -2.27      -21.18       -1.24         .94         .41         .26
              -4.11      -19.80       -1.21         .46         .40         .17
              -5.16       15.65        3.16        -.05         .45         .23
-------------------------------------------------------------------------------
Approximate single panel pressure    2.230 MPa
-------------------------------------------------------------------------------
```

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